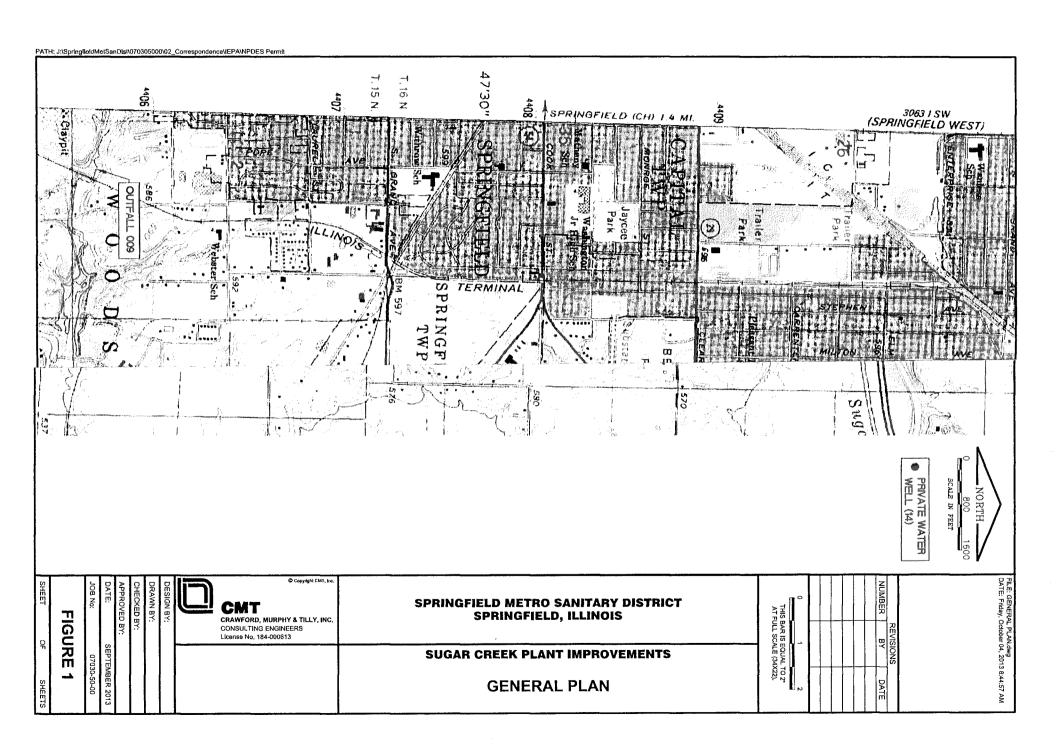
	ype in the unshad							Form Approved. OMB No. 2040-0	086.		
FORM		U.S. ENVIR						I. EPA I.D. NUMBER			
1	\$EPA				IFORMA Permits Prog			F			T/A C
GENERAL					ructions" bej			1 2		13	
LABEL	ITEMS							GENERAL INSTRU			
							E This section of the section of th	If a preprinted label has been processed designated space. Review the information	ation o	arefully	; if any of it
I. EPA I.D.	NUMBER							is incorrect, cross through it and ent appropriate fill-in area below. Also, if			
III. FACILITY	'NAME	PLEASE	PLA	CE LA	BEL IN THI	ss	SPACE	is absent (the area to the left of information that should appear), plea			
V. FACILITY	'MAILING							fill-in area(s) below. If the label is c need not complete Items I, III, V, a	omplet	e and o	correct, you
ADDRES					100			must be completed regardless). Com	iplete a	ill items	s if no label
VI. FACILITY	LOCATION	12.66						has been provided. Refer to the ins descriptions and for the legal author			
100000000000000000000000000000000000000	CHARACTERIS	TICS						data is collected.			
								U. P. P. A. J.C.			
submit this forr	n and the supple	mental form listed in the pare	nthes	is follo	wina the au	esti	ion. Mark "X" in the box in	the EPA. If you answer "yes" to an the third column if the supplemen	tal for	m is a	ttached. If
you answer "no	o" to each questio	on, you need not submit any o of the instructions for definition	f thes	e forms	s. You may	ans	swer "no" if your activity is e	excluded from permit requirements	s; see	Sectio	n C of the
motractions. Ce	e also, decitor E	or the manachona for definition	7113 01	Mark		s .		·		Mark	-X"
	SPECIFIC QL	JESTIONS	YES	NO	FORM ATTACHED	1	SPECIFIC	QUESTIONS	YES	NO	FORM
A. Is this facility	/ a publicly own	ned treatment works which			ATTACHED	В		(either existing or proposed)			ATTACHED
results in a d	lischarge to wate	ers of the U.S.? (FORM 2A)	X			-	include a concentrated	animal feeding operation or		X	
			16	17	18	ł	aquatic animal product discharge to waters of the	tion facility which results in a	19	20	21
C. Is this a faci	ility which curren	tly results in discharges to				D.		(other than those described in A			
		n those described in A or B		X			or B above) which will res	sult in a discharge to waters of		X	
above? (FOF			22	23	24	Ļ	the U.S.? (FORM 2D)		25	26	27
hazardous v	ill this facility ti vastes? (FORM:	reat, store, or dispose of 3)		×		F.		ect at this facility industrial or low the lowermost stratum		X	
	•	,				ļ	containing, within one of	quarter mile of the well bore,		^	ł
C D	0	- C 1114	28	29	30	1	underground sources of d		31	32	33
		s facility any produced water brought to the surface in				Н.		t at this facility fluids for special of sulfur by the Frasch process,			
		oil or natural gas production,		X			solution mining of minera	als, in situ combustion of fossil		X	
		ed recovery of oil or natural age of liquid hydrocarbons?					fuel, or recovery of geothe	ermai energy? (FORM 4)			
(FORM 4)			34	35	36				37	38	39
		tionary source which is one				J.		ed stationary source which is			
		listed in the instructions and 00 tons per year of any air		X				dustrial categories listed in the rill potentially emit 250 tons per		\times	
		Clean Air Act and may affect area? (FORM 5)	40	41	42	-	year of any air pollutant re	egulated under the Clean Air Act	43	44	45
or be located	i in an attairment	alea? (FORIVI 5)	40	, "	42		(FORM 5)	ocated in an attainment area?	4-3	**	45
III. NAME OF	FACILITY										
SKIP ST	DETACETEL		.	CTD	TCT	CT.		TTTTV			
1 SKIP SE	RINGFIELL	MEIRO BANIIARI		.SIR	TC1 -	<u> </u>	GAR CREEK FAC	TT+T T	69		
IV. FACILITY	CONTACT					_			09		
		A. NAME & TITLE (last,	first.	& title)				B. PHONE (area code & no.)			110
c CLEAD	TERR OF		Ť	1 i				(217) 528-0491			
-	UEFF OPE	RATIONS SUPERVIS									
V FACILTY MAI	ILING ADDRESS		***********				45 4	46 48 49 51 52- 5	ь	218.55	-
V.I AGILITI WA	EINO ADDITEGO	A. STREET OR P.	O. BC	X							
c 2000 176			T	T					100		
	ORTH 8TH 3	STREET					**************************************				
15 16		P CITY OR TOWN					45 D	D. ZIP CODE			
С		B. CITY OR TOWN	T-	П		$\overline{}$					
4 SPRING	FIELD						' IL 6:	27d7 ' '			
15 16						_	40 41 42 47	51		i di	
VI. FACILITY L									V (8 M.S)	SS COURT	
c	A. SIR	EET, ROUTE NO. OR OTHE	K SPE	TT	IDENTIFIE	:K					
	ECHANICSB	URG ROAD ' ' '						All the second			
15 16							45				
		B, COUNTY	MAM	E		_					
SANGAMON				1	· · · · ·	1					
46		C CITY OR TOWN					ID OTATE!	E ZIR CODE E COUNTY CO)DE /	f lm.	m1 (1995)
С		C. CITY OR TOWN	1.			1		E. ZIP CODE F. COUNTY CO	יח⊏ (וֹ	, know	<u>"</u>
6 SPRINGE	TETD .			•					Ε,		
15 18 EPA Form 3510-	1 (8-90)						40 41 42 47	[52] 52 CO	-54 NTINI	JE ON	REVERSE
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ONTINUED FROM THE FRONT		
/II. SIC CODES (4-digit, in order of priority) A. FIRST	B. SEC	OND
(specify)	C (specify)	UIND
18 - 19	15 16 - 19	
C. THIRD	D. FOU	RTH
(specify)	$\frac{c}{7}$ (specify)	
16 · 19	15 16 - 19	
III. OPERATOR INFORMATION A. NAME		B. Is the name listed in Item
3		VIII-A also the owner?
5 18		✓ YES □ NO
C. STATUS OF OPERATOR (Enter the appropriate lette.	r into the answer box: if "Other," specify.)	D. PHONE (area code & no.)
F = FEDERAL M = PUBLIC (other than federal or state)	(specify)	c /
S = STATE O = OTHER (specify)	M	A (217) 528-0491
	56	15 6 - 18 19 - 21 22 - 26
E. STREET OR P.O. BOX		
3000 NORTH'8TH'STREET''''		
	55	The Post Section 1995 and 1995
F. CITY OR TOWN	G. STATE H. ZIP CODE	
SPRINGFIELD	IL 62702	Is the facility located on Indian lands? ☐ YES ☐ NO
5 16	40 41 42 47 - 51	52
. EXISTING ENVIRONMENTAL PERMITS		
	O (Air Emissions from Proposed Sources)	
T		
5 16 17 18 30 15 16 17 18	30	
B. UIC (Underground Injection of Fluids)	E. OTHER (specify)	
	06-SC-2668 (specify)
5 16 17 18 30 15 16 17 18	30	
C. RCRA (Hazardous Wastes)	E. OTHER (specify)	
2 T	(specify)
5 K 5 5 16 17 18 30 15 16 17 18	30	
(I. MAP		
Attach to this application a topographic map of the area extending to at le	ast one mile beyond property boundaries. The map	must show the outline of the facility, the
location of each of its existing and proposed intake and discharge structure injects fluids underground. Include all springs, rivers, and other surface wate	s, each of its nazardous waste treatment, storage, or r bodies in the map area. See instructions for precise r	equirements.
III. NATURE OF BUSINESS (provide a brief description)		
OTW TREATING DOMESTIC AND INDUSTRIAL WASTEWATER F	OR SPRINGFIELD AND OUTLYING AREAS.	
		ļ
(III. CERTIFICATION (see instructions)		
I certify under penalty of law that I have personally examined and am famil	ar with the information submitted in this application ar	nd all attachments and that, based on my
nquiry of those persons immediately responsible for obtaining the informat	on contained in the application, I believe that the info	rmation is true, accurate, and complete. I
am aware that there are significant penalties for submitting false information		C. DATE SIGNED
A. NAME & OFFICIAL TITLE (type or print) JEFF W. SLEAD, OPERATIONS B. SIG	NATURE A 21	
SUPERVISOR	WKW. X	10/23/13
	De a	
COMMENTS FOR OFFICIAL USE ONLY		
5 16		55

EPA Form 3510-1 (8-90)
*Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h)).



Sugar Creek WWTP IL0021971

FORM 2A NPDES

NPDES FORM 2A APPLICATION OVERVIEW

APPLICATION OVERVIEW

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

- A. Basic Application Information for all Applicants. All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.
- B. Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd. All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.
- C. Certification. All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

- D. Expanded Effluent Testing Data. A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):
 - 1. Has a design flow rate greater than or equal to 1 mgd,
 - 2. Is required to have a pretreatment program (or has one in place), or
 - 3. Is otherwise required by the permitting authority to provide the information.
- E. Toxicity Testing Data. A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):
 - 1. Has a design flow rate greater than or equal to 1 mgd,
 - 2. Is required to have a pretreatment program (or has one in place), or
 - 3. Is otherwise required by the permitting authority to submit results of toxicity testing.
- F. Industrial User Discharges and RCRA/CERCLA Wastes. A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:
 - 1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
 - 2. Any other industrial user that:
 - a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
 - b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
 - c. Is designated as an SIU by the control authority.
- **G. Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

Sugar Creek WWTP IL0021971

BASIC APPLICATION INFORMATION

li Ei	reatment works mus	complete questions A.1 through A.8 of	this Basic Application Information pa	cket.
.1.	Facility Information	i.		
	Facility name	Springfield Metro Sanitary District - S	ugar Creek WWTP	
	Mailing Address	3000 North Eighth Street Springfield, IL 62707		
	Contact person	Jeff W. Slead		
	Title	Operations Subervisor		
	Telephone number	(217) 528-0491		
	Facility Address (not P.O. Box)	3300 Mechanicsburg Road Springfield, IL		
2.	Applicant Informati	on. If the applicant is different from the abo	ove, provide the following:	
	Applicant name	Springfield Metro Sanitary District		
	Mailing Address	3000 North Eighth Street Springfield, IL 62707		
	Contact person	Jeff W. Slead		
	Title	Operations Supervisor	· · · · · · · · · · · · · · · · · · ·	
	Telephone number	(217) 528-0491	<u> </u>	
	Is the applicant the	owner or operator (or both) of the treatr	nent works?	2
	Indicate whether cor	respondence regarding this permit should be applicant	e directed to the facility or the applicant.	
	Existing Environme works (include state-	ental Permits. Provide the permit number issued permits).	of any existing environmental permits that	at have been issued to the treatment
	NPDES IL002197	71	PSD	
				3 (Sludge Land Application)
	RCRA		Other	
		Information. Provide information on munic lown, provide information on the type of col		
	Name	Population Served	Type of Collection System	Ownership
		e 2A		

SMSD SUGAR CREEK WWTP IL0021971

BASIC APPLICATION INFORMATION

A. 4. Collection System Information

Community Name	Population Served	Type of Collection System	Ownership
Unincorporated	7,000	Combined	Municipal
Sangamon County			·
Springfield	29,000	Combined	Municial
Rochester	3,000	Separate	Municipal
Southern View	2,000	Separate	Municipal
Total Population	41,000		

FACILITY NAME AND PERMIT NUMBER: Form Approved 1/14/99 OMB Number 2040-0086 Sugar Creek WWTP IL0021971 A.5. Indian Country. a. Is the treatment works located in Indian Country? b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country? Yes A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal. a. Design flow rate ______10.00 mgd Two Years Ago Last Year b. Annual average daily flow rate 11.04 14.84 15.18 mgd 32.42 31.12 mgd c. Maximum daily flow rate 29.67 A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each. 70.00 % Separate sanitary sewer 30.00 % Combined storm and sanitary sewer A.8. Discharges and Other Disposal Methods. ✓ Yes a. Does the treatment works discharge effluent to waters of the U.S.? If yes, list how many of each of the following types of discharge points the treatment works uses: i. Discharges of treated effluent ii. Discharges of untreated or partially treated effluent iii. Combined sewer overflow points iv. Constructed emergency overflows (prior to the headworks) NA b. Does the treatment works discharge effluent to basins, ponds, or other surface **√** No impoundments that do not have outlets for discharge to waters of the U.S.? If yes, provide the following for each surface impoundment: Annual average daily volume discharged to surface impoundment(s) Is discharge __ continuous or intermittent? Yes c. Does the treatment works land-apply treated wastewater? If yes, provide the following for each land application site: Location:

FACILITY NAME AND PERMIT NUMBER: Form Approved 1/14/99 OMB Number 2040-0086 Sugar Creek WWTP IL0021971 If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe). If transport is by a party other than the applicant, provide: Transporter name: Mailing Address: Contact person: Title: Telephone number: For each treatment works that receives this discharge, provide the following: Name: Mailing Address: Contact person: Title: Telephone number: If known, provide the NPDES permit number of the treatment works that receives this discharge. Provide the average daily flow rate from the treatment works into the receiving facility. mgd

___ intermittent?

e. Does the treatment works discharge or dispose of its wastewater in a manner not included in

__ continuous or

A.8.a through A.8.d above (e.g., underground percolation, well injection)?

Description of method (including location and size of site(s) if applicable):

If yes, provide the following for each disposal method:

Annual daily volume disposed of by this method:

Is disposal through this method

Sugar Creek WWTP IL0021971

Form Approved 1/14/99 OMB Number 2040-0086

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

	Outfall number	008 STP Outfall	
b.	Location	Springfield	62707
		(City or town, if applicable) Sangamon	(Zip Code) IL
		(County) 39° 47′ 37″ N	(State) 89° 34' 55" W
		(Latitude)	(Longitude)
c.	Distance from shore	e (if applicable)	ft.
d.	Depth below surface	e (if applicable)	ft.
e.	Average daily flow ra		15.18 mgd
c.	, training daily now in	uio	
f.		ve either an intermittent or a	
	periodic discharge?		Yes No (go to A.9.g.)
	If yes, provide the fo	ollowing information:	
	Number of times per	r year discharge occurs:	
	Average duration of	-	
	Average flow per dis	_	mgd
	Months in which dis-		
g.	Is outfall equipped v	vith a diffuser?	Yes No
10. Des	scription of Receivi	ng Waters.	
a.	Name of receiving w	vater Sugar Creek	
b.	Name of watershed	(if known)	South Fork of the Sangamon River
	United States Soil C	Conservation Service 14-digit v	ratershed code (if known):
	Office Otales Soll C	Joniser valion der vice 14-digit v	alcioned code (it known).
C.	Name of State Mana	agement/River Basin (if knowr):
			07400007
	United States Geold	ogical Survey 8-digit hydrologi	cataloging unit code (if known): 07130007
d.	Critical low flow of re	eceiving stream (if applicable)	
	acute		chronic cfs
	Total hardness of re	eceiving stream at critical low f	ow (if applicable): mg/l of CaCO3

F ACILITY NAM Sugar Creek V			MBER:						Form Approved 1/14/99 OMB Number 2040-0086
A.11. Descripti	tion of Tre	eatment.	······································						
a. What	t levels of	treatment a	are provided? (Check all that	apply.				
	✓ Pr	imary		✓ Seco	ondary				
	Ac	dvanced		Othe	r. Describe:				
b. Indica	ate the fol	llowing rem	oval rates (as	applicable):					
Desig	gn BOD _s r	removal <u>or</u> l	Design CBOD ₅	removal		95.00)	%	
Desig	gn SS ren	noval				95.00)	%	
Desig	gn P remo	oval						%	
Desig	gn N remo	oval						%	
Other	er							%	
c. What	t type of d	lisinfection i	s used for the	effluent from t	his outfall? If dis	sinfection varies	by season, p	lease describ	be.
			olely for storr						
					for this outfall?		Ye	es	√ No
d. Does	s the treati	ment plant l	nave post aera	tion?		_	Ye	es	✓ No
paramete <u>discharg</u> collected	ers. Provi ged. Do n d through	ide the ind not include n analysis o	icated effluen information o conducted usi	t testing requ on combined ng 40 CFR P	iired by the pe sewer overflov art 136 method	rmitting authori vs in this sections. Is. In addition,	ty <u>for each on.</u> In. All inforn this data mu	outfall throu nation repor ist comply v	g data for the following gh which effluent is ted must be based on data vith QA/QC requirements ssed by 40 CFR Part 136.
paramete discharg collected of 40 CFI	ers. Provined. Do not through R Part 13 imum, eff	ide the ind not include n analysis o 16 and othe	icated effluen information o conducted usi r appropriate	t testing requenced in combined ing 40 CFR P QA/QC requi	ired by the pe sewer overflov art 136 method rements for st	rmitting author vs in this sections ls. In addition, andard method	ty <u>for each</u> on. All inforn this data mu s for analyte	outfall throun nation reporust comply was not addre	gh which effluent is ted must be based on data
paramete discharg collected of 40 CFI At a mini	ers. Provined. Do not through R Part 13 imum, eff	ide the ind not include n analysis of 6 and othe fluent testi	icated effluen information o conducted usi r appropriate ng data must	t testing requenced in combined ing 40 CFR P QA/QC requi	ired by the pe sewer overflov art 136 method rements for st at least three s	rmitting author vs in this sections ls. In addition, andard method	ity <u>for each on.</u> All inforn this data mu s for analyte ust be no mo	outfall throun nation reporust comply was not addre	igh which effluent is ted must be based on data with QA/QC requirements ssed by 40 CFR Part 136. It and one-half years apart
paramete discharg collected of 40 CFI At a mini	ers. Provinged. Do not through R Part 13 imum, effumber:	ide the ind not include n analysis of 6 and othe fluent testi	icated effluen information c conducted usi or appropriate ng data must	t testing requent combined ng 40 CFR P QA/QC requing be based on	ired by the pe sewer overflov art 136 method rements for st at least three s	rmitting author vs in this sections ls. In addition, andard method	ity for each on. All inforn this data must for analyte ust be no mo	outfall throu nation repor ist comply w is not addre ore than four	igh which effluent is ted must be based on data with QA/QC requirements ssed by 40 CFR Part 136. It and one-half years apart
paramete discharg collected of 40 CFI At a mini Outfall nu	ers. Provinged. Do not through R Part 13 imum, effumber:	ide the ind not include n analysis of 6 and othe fluent testi	icated effluen information c conducted usi or appropriate ng data must	t testing request combined on combined on the	uired by the pe sewer overflow art 136 method rements for st at least three s	rmitting authorivs in this section is. In addition, andard method samples and mu	ity for each on. All inforn this data must for analyte ust be no mo	outfall throunation reports comply wes not addresore than four	igh which effluent is ted must be based on data with QA/QC requirements ssed by 40 CFR Part 136. If and one-half years apart
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paramete discharg collected of 40 CFI At a mini Outfall nu P PH (Minimum) OH (Maximum) Flow Rate Temperature (S * For pH	winter) Summer) Summer)	ide the ind not include a analysis of 66 and other fluent testing the fluent testing testing the fluent testing testin	r appropriate appr	t testing request combined on combined on the	uired by the pe sewer overflow art 136 method rements for state least three such that the sewer overflow is such that the sewe	value Value 15.18 5.00 22.00	AVE	couffall through action reports to comply we so not address not ad	red must be based on data with QA/QC requirements assed by 40 CFR Part 136. If and one-half years apart (VALUE) Number of Samples 365.00 24.00 24.00
paramete discharg collected of 40 CFI At a mini Outfall nu P PH (Minimum) OH (Maximum) Flow Rate Temperature (S * For pH	ers. Provinged. Do not through R Part 13 imum, effumber: PARAMET	ide the ind not include a analysis of 66 and other fluent testing the fluent testing testing the fluent testing testin	7.50 7.70 33.93 12.00 25.00 num and a max	t testing request combined on combined on combined on quarter produced by the based on the based	uired by the pe sewer overflow art 136 method rements for state least three such that the sewer overflow is such that the sewe	rmitting authorivs in this sections. In addition, andard method samples and samples are	AVE	poutfall through action reports to comply were not address not add	red must be based on data with QA/QC requirements assed by 40 CFR Part 136. If and one-half years apart (VALUE) Number of Samples 365.00 24.00 24.00 24.00 CAL ML/MDL
paramete discharg collected of 40 CFI At a mini Outfall nu P PH (Minimum) OH (Maximum) Flow Rate Temperature (S * For pH	winter) Summer) Summer)	ide the ind not include a analysis of 66 and other fluent testing the fluent testing testing the fluent testing testin	7.50 7.70 33.93 12.00 25.00 num and a max	t testing request combined on combined on combined on quarter	uired by the pe sewer overflow art 136 method rements for state least three such that the sewer overflow is such that the sewe	value Value 15.18 5.00 22.00	MG Deg HARGE	PAGE DAILY Units D G. C. ANALYTIC METHO	red must be based on data with QA/QC requirements assed by 40 CFR Part 136. If and one-half years apart (VALUE) Number of Samples 365.00 24.00 24.00 24.00 CAL ML/MDL
paramete discharg collected of 40 CFI At a mini Outfall nu P PH (Minimum) OH (Maximum) Flow Rate Temperature (S * For pH	winter) Summer) Summer)	ide the ind not include a analysis of 66 and other fluent testing the fluent testing testing the fluent testing testin	7.50 7.70 33.93 12.00 25.00 num and a max	t testing request combined on combined on combined on 40 CFR P. QA/QC requise based on MAXIMUM DAVAIUE MAXIMUM DAVAIUE Combined on Combi	uired by the pe sewer overflow art 136 method rements for state least three such that least three such three s	rmitting authorives in this section in this section is. In addition, and ard method samples and method is amples and method is a section in the section in the section is a section in the section in the section is a section in the section in the section in the section is a section in the sectio	AVE AVE AVE AVE AVE AVE	PAGE DAILY Units D G. C. ANALYTIC METHO	red must be based on data with QA/QC requirements assed by 40 CFR Part 136. If and one-half years apart (VALUE) Number of Samples 365.00 24.00 24.00 24.00 CAL ML/MDL
paramete discharg collected of 40 CFI At a mini Outfall nu P PH (Minimum) OH (Maximum) Flow Rate Temperature (S * For pH	ers. Provinged. Do not through the Part 13 imum, effumber: PARAMET Winter) Summer) please re	ide the ind not include a analysis of 66 and other fluent testing 1008 TER port a minir	7.50 7.70 33.93 12.00 25.00 num and a max MAXIML DISCI	t testing request combined on combined on combined on the comb	uired by the pe sewer overflow art 136 method rements for state least three such that least three such three s	rmitting authorives in this section in this section is. In addition, and ard method samples and method is amples and method is a section in the section in the section is a section in the section in the section is a section in the section in the section in the section is a section in the sectio	MG Deg HARGE	PAGE DAILY Units D G. C. ANALYTIC METHO	red must be based on data with QA/QC requirements assed by 40 CFR Part 136. If and one-half years apart (VALUE) Number of Samples 365.00 24.00 24.00 24.00 CAL ML/MDL
parameter discharge collected of 40 CFI At a mini Outfall number (Maximum) of (Maxi	winter) Summer) please re	ide the ind not include a analysis of 66 and other fluent testing 1008 TER port a minir	7.50 7.70 33.93 12.00 25.00 num and a max MAXIML DISCI	t testing request combined on combined on combined on the comb	uired by the pe sewer overflow art 136 method rements for state least three such that least three such three s	rmitting authorives in this section in this section is. In addition, and ard method samples and method is amples and method is a section in the section in the section is a section in the section in the section is a section in the section in the section in the section is a section in the sectio	MG Deg HARGE	PAGE DAILY Units D G. C. ANALYTIC METHO	red must be based on data with QA/QC requirements assed by 40 CFR Part 136. If and one-half years apart (VALUE) Number of Samples 365.00 24.00 24.00 24.00 CAL ML/MDL
parameter discharge collected of 40 CFI At a mini Outfall number (Minimum) of (Minimum) of (Maximum) of (Maxi	winter) Summer) please re LUTANT	ide the ind not include a analysis of and other fluent testing the fluent testing testing the fluent a minimum testing	7.50 7.70 33.93 12.00 25.00 num and a max MAXIML DISCI	t testing request combined on combined on combined on the comb	uired by the pe sewer overflow art 136 method rements for state least three such that least three such three s	rmitting authorives in this section in this section is. In addition, and ard method samples and method is amples and method is a section in the section in the section is a section in the section in the section is a section in the section in the section in the section is a section in the sectio	MG Deg HARGE	PAGE DAILY Units D G. C. ANALYTIC METHO	red must be based on data with QA/QC requirements assed by 40 CFR Part 136. If and one-half years apart (VALUE) Number of Samples 365.00 24.00 24.00 24.00 CAL ML/MDL
parameter discharge collected of 40 CFi At a mini Outfall number of the collected of 40 CFi At a mini Outfall number of the collected of 40 CFi At a mini Outfall number of the collected of the	winter) Summer) please re LUTANT AL AND N OXYGEN rt one)	ide the ind not include a analysis of 66 and other fluent testing 1988. TER. Port a mining 1998. HONCONVE BOD-5	icated effluen information of conducted using appropriate appropri	t testing request combined on combined on combined on the comb	uired by the pe sewer overflow art 136 method rements for state least three state le	rmitting authorives in this section is. In addition, and ard method samples and method samples and method is a sample in the section is a sample in the section in the section is a section in the section in the section is a section in the section in the section is a section in the section in the section in the section is a section in the section in the section in the section is a section in the	MG AVE AVE MARGE Number of Samples	Duffall throughation reports to comply were not address not addres	rah which effluent is ted must be based on data with QA/QC requirements assed by 40 CFR Part 136. It and one-half years apart AVALUE Number of Samples 365.00 24.00 24.00 CAL ML/MDL

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

		Y NAME AND PERMIT NUMBER:	Form Approved 1/14/99 OMB Number 2040-0086
ВА	SIC	C APPLICATION INFORMATION	
PAF	RT B	B. ADDITIONAL APPLICATION INFORMATION FOR EQUAL TO 0.1 MGD (100,000 gallons per day).	APPLICANTS WITH A DESIGN FLOW GREATER THAN OR
All a	pplic	cants with a design flow rate \geq 0.1 mgd must answer questions B	1 through B.6. All others go to Part C (Certification).
B.1.	Inf	flow and Infiltration. Estimate the average number of gallons p	er day that flow into the treatment works from inflow and/or infiltration.
		gpd	
	Bri	iefly explain any steps underway or planned to minimize inflow a	nd infiltration.
	Th	HIS IS A COMBINED SEWER SYSTEM	
B.2.	Thi		the area extending at least one mile beyond facility property boundaries. rmation. (You may submit more than one map if one map does not show
	a.	The area surrounding the treatment plant, including all unit produced	cesses.
	b.	The major pipes or other structures through which wastewater of treated wastewater is discharged from the treatment plant. Incl.	enters the treatment works and the pipes or other structures through which lude outfalls from bypass piping, if applicable.
	c.	Each well where wastewater from the treatment plant is injected	d underground.
	d.	Wells, springs, other surface water bodies, and drinking water works, and 2) listed in public record or otherwise known to the	wells that are: 1) within 1/4 mile of the property boundaries of the treatment applicant.
	e.	Any areas where the sewage sludge produced by the treatmen	t works is stored, treated, or disposed.
	f.		rdous under the Resource Conservation and Recovery Act (RCRA) by ous waste enters the treatment works and where it is treated, stored, and/or
В.3.	back chlo	kup power sources or redundancy in the system. Also provide a	the processes of the treatment plant, including all bypass piping and all water balance showing all treatment units, including disinfection (e.g., y average flow rates at influent and discharge points and approximate daily tion of the diagram.
R 4	One	eration/Maintenance Performed by Contractor(s).	
J	Are	• • • • • • • • • • • • • • • • • • • •	treatment and effluent quality) of the treatment works the responsibility of a
		es, list the name, address, telephone number, and status of each ges if necessary).	contractor and describe the contractor's responsibilities (attach additional
	Nan	me:	
	Mail		
	Tele	ephone Number:	
		sponsibilities of Contractor:	
B. 5.	unc trea	completed plans for improvements that will affect the wastewater	Provide information on any uncompleted implementation schedule or treatment, effluent quality, or design capacity of the treatment works. If the splanning several improvements, submit separate responses to question
	a.	List the outfall number (assigned in question A.9) for each outfall	all that is covered by this implementation schedule.
		Sugar Creek Plant Outfall 008	

b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

_**✓**_Yes ____No

FACILITY NAME AND PER Sugar Creek WWTP IL00		:					proved 1/14/99 mber 2040-0086
c If the answer to B	3.5.b is "Yes," b	riefly describe, inc	luding new ma	ximum daily inflow	v rate (if applicat	ble).	
applicable. For in	nprovements p		ntly of local, Si			mentation steps listed planned or actual cor	
		Schedule		Actual Completion	on		
Implementation S	itage	MM / DD	/ YYYY	MM / DD / YYYY	•		
 Begin construct 	ion	<u>5</u> / <u>1</u> /	<u>2015</u>	/			
 End construction 	n	7 / 1 /	2018				
– Begin discharge	9	7 / 1 /	2018	//			
 Attain operation 	ial level	7_/1_/	<u>2018</u>		•		
e. Have appropriate	permits/cleara	nces concerning c	ther Federal/S	tate requirements	been obtained?	Yes _ _	_No
Describe briefly:	Facility Plan approval.	has been subm	itted to IEPA	and is awaiting			
standard methods for pollutant scans and m Outfall Number: 008 POLLUTANT	STP Outfall MAXII	ddressed by 40 Cf than four and on MUM DAILY CHARGE	e-haif years ol	At a minimum, efflud. RAGE DAILY DISC	_	must be based on at	least three
	Conc	Units	Conc.	Units	Number of Samples	ANALYTICAL METHOD	ML/MDL
CONVENTIONAL AND NO	CONVENTIO	VAL COMPOUND	S.	<u> </u>		I management to the second	
AMMONIA (as N)	1.20	mg/l	0.54	mg/l	23.00	4500 NH3-F	<0.01 mg/l
CHLORINE (TOTAL RESIDUAL, TRC)			-				
DISSOLVED OXYGEN	11.70	mg/l	10.30	mg/l	23.00	4200D-G	<0.1 mg/l
TOTAL KJELDAHL NITROGEN (TKN)							
NITRATE PLUS NITRITE NITROGEN							
OIL and GREASE	2.00	mg/l	1.00	mg/l	4.00	5220-B	<1 mg/l
PHOSPHORUS (Total)	1.98	mg/l	1.78	mg/l	4.00	4200-P	<0.05 mg/l
TOTAL DISSOLVED SOLIDS (TDS)							
OTHER	*						
* - SEE ATTAC	· 事的。在1945年1945年1945日 日	3.4.46mm 出版表示。在2015年1月1日 1月1日 1月1日 1月1日 1月1日 1月1日 1月1日 1月1日	END OF		E WHICH	OTHER PART	S OF FORM

2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER: Sugar Creek WWTP IL0021971		Form Approved 1/14/99 OMB Number 2040-0086
BASIC APPLICATION INFOR	MATION	
PART C. CERTIFICATION		
applicants must complete all applicable section	ns of Form 2A, as explained in thing this certification statement, app	letermine who is an officer for the purposes of this certification. All e Application Overview. Indicate below which parts of Form 2A you licants confirm that they have reviewed Form 2A and have completed
Indicate which parts of Form 2A you have	completed and are submitting:	
Basic Application Information page	cket Supplemental Applicati	on Information packet:
		ded Effluent ⊤esting Data)
	,	y Testing: Biomonitoring Data)
		ial User Discharges and RCRA/CERCLA Wastes)
	Part G (Combi	ned Sewer Systems)
ALL APPLICANTS MUST COMPLETE THE	FOLLOWING CERTIFICATION.	
designed to assure that qualified personnel pr who manage the system or those persons dire	operly gather and evaluate the in ectly responsible for gathering the	ared under my direction or supervision in accordance with a system formation submitted. Based on my inquiry of the person or persons information, the information is, to the best of my knowledge and Ities for submitting false information, including the possibility of fine
Name and official title Gregg S. Humphr	ey, Director/Engineer	
Signature	69-	
Telephone number (217) 528-0491		
Date signed 10 - 2	2-13	
Upon request of the permitting authority, you works or identify appropriate permitting requir		necessary to assess wastewater treatment practices at the treatment

SEND COMPLETED FORMS TO:

Sugar Creek WWTP IL0021971

SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Treatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: 008 (Complete once for each outfall discharging effluent to waters of the United States.)

Conc. CYANIDE, <0.01 <0.005 0.004	PHENO		Units	Γ	Units	Mass	Units	Number of Samples	ANALYTICAL METHOD	ML/ MDL
<0.01	mg/l		HARDNE	Γ	PROGRAMATION OF	Popularity (St.)	an aghraid faithea	Campics		
<0.005				<0.01						
	mg/l		1	30.01	mg/l			4	3113B	<0.01 mg/l
0.004				<0.005	mg/l			4	3113B	<0.005 mg/
L	mg/l			<0.002	mg/l			4	3113B	<0.001 mg/
0.001	mg/l			<0.001	mg/l			4	3113B	<0.001 mg/
<0.01	mg/l			<0.01	mg/l			4	3113B	<0.01 mg/
0.006	mg/l			<0.004	mg/l			4	3113B	<0.002 mg/
<0.01	mg/l			<0.01	mg/l			4	3113B	<0.01 mg/
0.0002	mg/l			<0.0002	mg/l			4	3112B	<0.0002 mg/
0.010	mg/l	!		<0.004	mg/l			4	3113B	<0.001 mg/
<0.005	mg/l			<0.003	mg/l			4	3113B	<0.002 mg/
<0.005	mg/l			<0.004	mg/l		-	4	3113B	<0.003 mg/
<0.005	mg/l			<0.005	mg/l			4	3113B	<0.005 mg/
0.05	mg/l			<0.05	mg/l			4	3111B	<0.02 mg/
<0.01	mg/l			<0.01	mg/l			4	4500CN-D	<0.01 mg/
<0.005	mg/l			<0.005	mg/l			4	EPA 420.1	<0.005 mg/
										<0.002 mg/
provide in	formation	n on other	metals re	equested l	by the per	mit writer	·			
						_				
	0.001 <0.01 0.006 <0.01 0.0002 0.010 <0.005 <0.005 <0.005 <0.005	0.001 mg/l <0.01 mg/l 0.006 mg/l <0.01 mg/l 0.0002 mg/l 0.0005 mg/l <0.005 mg/l <0.005 mg/l <0.005 mg/l <0.005 mg/l <0.005 mg/l	<0.01 mg/l <0.005 mg/l	0.001 mg/l <0.01 mg/l 0.006 mg/l <0.01 mg/l 0.0002 mg/l 0.010 mg/l <0.005 mg/l	0.001 mg/l	0.001 mg/l	0.001 mg/l	0.001 mg/l <0.001 mg/l	0.001 mg/l <0.001 mg/l	0.001 mg/l

OMB Number 2040-0086 Sugar Creek WWTP IL0021971 Outfall number: (Complete once for each outfall discharging effluent to waters of the United States.) POLLUTANT MAXIMUM DAILY AVERAGE DAILY DISCHARGE DISCHARGE ANALYTICAL ML/ MDL Conc. Units Mass Units Conc. Units Mass Units Number METHOD of Samples VOLATILE ORGANIC COMPOUNDS. 50 μL/L 3 EPA 624 <MDL|µL/L **ACROLEIN** <MDL|µL/L 3 EPA 624 50 µL/L **ACRYLONITRILE** <MDL|µL/L <MDL|µL/L 3 $5 \mu L/L$ EPA 624 BENZENE <MDL|µL/L <MDL|µL/L 3 $5 \mu L/L$ BROMOFORM EPA 624 <MDL|µL/L <MDL|µL/L 3 $5 \mu L/L$ **EPA 624** CARBON TETRACHLORIDE <MDL|µL/L <MDL|uL/L 3 **EPA 624** $5 \mu L/L$ CLOROBENZENE <MDL|µL/L <MDL|µL/L 3 5 µL/L EPA 624 CHLORODIBROMO-METHANE <MDL|µL/L <MDL | µL/L <MDL|µL/L 3 **EPA 624** $5 \mu L/L$ CHLOROETHANE <MDL|µL/L 3 $5 \mu L/L$ **EPA 624** 2-CHLORO-ETHYLVINYL <MDL|µL/L <MDL uL/L ETHER 3 **EPA 624** $5 \mu L/L$ CHLOROFORM <MDL|µL/L <MDL|µL/L 3 **EPA 624** $5 \mu L/L$ DICHLOROBROMO-METHANE <MDL|µL/L <MDL|µL/L 3 5 µL/L **EPA 624** 1,1-DICHLOROETHANE <MDL|µL/L <MDL µL/L 3 $5 \mu L/L$ EPA 624 1.2-DICHLOROETHANE <MDL|µL/L <MDL|µL/L 3 5 uL/L TRANS-1,2-DICHLORO-ETHYLENE EPA 624 <MDL|µL/L <MDL|µL/L 3 $5 \mu L/L$ **EPA 624** 1,1-DICHLOROETHYLENE <MDL|µL/L <MDL µL/L 3 $5 \mu L/L$ EPA 624 1,2-DICHLOROPROPANE <MDL | µL/L <MDL µL/L 3 $5 \mu L/L$ 1.3-DICHLORO-PROPYLENE <MDL|µL/L <MDL|µL/L EPA 624 3 EPA 624 5 µL/L ETHYLBENZENE <MDL|µL/L <MDL|µL/L 3 **EPA 624** 5 µL/L <MDL|µL/L <MDL|µL/L METHYL BROMIDE 3 $5 \mu L/L$ EPA 624 METHYL CHLORIDE <MDL|µL/L <MDL | µL/L METHYLENE CHLORIDE 3 **EPA 624** $5 \mu L/L$ <MDL|µL/L <MDL|µL/L 3 $5 \mu L/L$ EPA 624 <MDL $|\mu$ L/L 1,1,2,2-TETRACHLORO-ETHANE <MDL|µL/L 3 EPA 624 5 µL/L TETRACHLORO-ETHYLENE <MDL|µL/L <MDL|µL/L

<MDL|µL/L

<MDL

μL/L

TOLUENE

 $5 \mu L/L$

3

EPA 624

Sugar Creek WWTP IL0021971

Outfall number:									the United	States.)	
POLLUTANT	N		IM DAIL` HARGE	Y	A۱	/ERAGI	EDAILY	DISCHA	ARGE		
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples	ANALYTICAL METHOD	ML/ MDL
1,1,1-TRICHLOROETHANE	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 624</td><td>5 µL/L</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 624</td><td>5 µL/L</td></mdl<>	μL/L			3	EPA 624	5 µL/L
1,1,2-TRICHLOROETHANE	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 624</td><td>5 μL/L</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 624</td><td>5 μL/L</td></mdl<>	µL/L			3	EPA 624	5 μL/L
TRICHLORETHYLENE	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 624</td><td>5 μL/L</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 624</td><td>5 μL/L</td></mdl<>	μL/L			3	EPA 624	5 μL/L
VINYL CHLORIDE	<mdl< td=""><td></td><td></td><td></td><td><mdl< td=""><td></td><td></td><td></td><td>3</td><td>EPA 624</td><td>5 µL/L</td></mdl<></td></mdl<>				<mdl< td=""><td></td><td></td><td></td><td>3</td><td>EPA 624</td><td>5 µL/L</td></mdl<>				3	EPA 624	5 µL/L
Use this space (or a separate shee	et) to provide in	formatio	n on other	volatile o	rganic cor	npounds	requeste	d by the p	ermit writer.	<u> </u>	
ACID-EXTRACTABLE COMPOU	NDS					<u> </u>					
						. ,				EDA 60E	00.5 .1.//
P-CHLORO-M-CRESOL	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>22.5 µL/L</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>22.5 µL/L</td></mdl<>	µL/L			3	EPA 625	22.5 µL/L
2-CHLOROPHENOL	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 μL/L</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 μL/L</td></mdl<>	μL/L			3	EPA 625	11.2 μL/L
2,4-DICHLOROPHENOL	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 μL/L</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 μL/L</td></mdl<>	µL/L			3	EPA 625	11.2 μL/L
2,4-DIMETHYLPHENOL	<mdl< td=""><td>µL/L</td><td></td><td></td><td><mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 μL/L</td></mdl<></td></mdl<>	µL/L			<mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 μL/L</td></mdl<>	μL/L			3	EPA 625	11.2 μL/L
4,6-DINITRO-O-CRESOL	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>56.2 μL/L</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>56.2 μL/L</td></mdl<>	μL/L			3	EPA 625	56.2 μL/L
2,4-DINITROPHENOL	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>μL/LμL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>56.2 μL/L</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>μL/LμL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>56.2 μL/L</td></mdl<>	μL/LμL/L			3	EPA 625	56.2 μL/L
2-NITROPHENOL	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 μL/L</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 μL/L</td></mdl<>	µL/L			3	EPA 625	11.2 μL/L
4-NITROPHENOL	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>56.2 µL/L</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>56.2 µL/L</td></mdl<>	µL/L			3	EPA 625	56.2 µL/L
PENTACHLOROPHENOL	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>56.2 µL/L</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>56.2 µL/L</td></mdl<>	µL/L			3	EPA 625	56.2 µL/L
PHENOL	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/L</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/L</td></mdl<>	μL/L			3	EPA 625	11.2 µL/L
2,4,6-TRICHLOROPHENOL	<mdl< td=""><td></td><td></td><td></td><td><mdl< td=""><td>'</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/L</td></mdl<></td></mdl<>				<mdl< td=""><td>'</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/L</td></mdl<>	'			3	EPA 625	11.2 µL/L
Use this space (or a separate shee	et) to provide in	formatio	n on other	acid-extr	actable co	mpound	s requeste	ed by the	permit writer.		<u>-</u>
BASE-NEUTRAL COMPOUNDS.					_						
BASE-NEUTRAL COMPOUNDS.	1				<u> </u>		1				Γ
ACENAPHTHENE	<mdl< td=""><td></td><td></td><td></td><td>-</td><td>μL/L</td><td></td><td></td><td>3</td><td></td><td>11.2 µL/L</td></mdl<>				-	μL/L			3		11.2 µL/L
ACENAPHTHYLENE	<mdl< td=""><td>μL/L</td><td></td><td></td><td></td><td>µL/L</td><td></td><td>_</td><td>3</td><td></td><td>511.2 µL/L</td></mdl<>	μL/L				µL/L		_	3		511.2 µL/L
ANTHRACENE	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td></td><td>11.2 µL/L</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td></td><td>11.2 µL/L</td></mdl<>	μL/L			3		11.2 µL/L
BENZIDINE	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/L</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/L</td></mdl<>	μL/L			3	EPA 625	11.2 µL/L
BENZO(A)ANTHRACENE	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/L</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/L</td></mdl<>	μL/L			3	EPA 625	11.2 µL/L
BENZO(A)PYRENE	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 μL/l</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 μL/l</td></mdl<>	μL/L			3	EPA 625	11.2 μL/l

Sugar Creek WWTP IL0021971

Outfall number: (Complete once for each outfall discharging effluent to waters of the United States.) POLLUTANT MAXIMUM DAILY AVERAGE DAILY DISCHARGE DISCHARGE Number ML/ MDL Units Mass Units Conc. Units Mass Units ANALYTICAL Conc. METHOD of Samples EPA 625 11.2 μL/L 3,4 BENZO-FLUORANTHENE <MDL|uL/L 3 EPA 625 11.2 µL/L BENZO(GHI)PERYLENE <MDL|µL/L 3 EPA 625 11.2 µL/L BENZO(K)FLUORANTHENE <MDL|µL/L 3 BIS (2-CHLOROETHOXY) EPA 625 11.2 µL/L <MDL|uL/L METHANE 3 EPA 625 11.2 µL/L BIS (2-CHLOROETHYL)-ETHER <MDL|µL/L EPA 625 11.2 µL/L BIS (2-CHLOROISO-PROPYL) <MDL|µL/L 3 EPA 625 11.2 µL/L 266 | µL/L BIS (2-ETHYLHEXYL) PHTHALATE 4-BROMOPHENYL PHENYL ETHER 3 EPA 625 11.2 µL/L <MDL|µL/L EPA 625 11.2 µL/L BUTYL BENZYL PHTHALATE <MDL μL/L 3 EPA 625 11.2 µL/L 2-CHLORONAPHTHALENE <MDL|µL/L 3 EPA 625 11.2 µL/L 4-CHLORPHENYL PHENYL ETHER <MDL|µL/L EPA 625 11.2 µL/L CHRYSENE <MDL|µL/L EPA 625 11.2 µL/L DI-N-BUTYL PHTHALATE <MDL|µL/L 3 EPA 625 11.2 µL/L DI-N-OCTYL PHTHALATE <MDL|µL/L EPA 625 11.2 µL/L DIBENZO(A,H) ANTHRACENE <MDL µL/L 3 EPA 625 11.2 µL/L 1,2-DICHLOROBENZENE <MDL | µL/L 3 EPA 625 11.2 µL/L <MDL|µL/L 1,3-DICHLOROBENZENE 3 EPA 625 11.2 µL/L 1,4-DICHLOROBENZENE <MDL|µL/L 3 EPA 625 11.2 µL/L 3,3-DICHLOROBENZIDINE <MDL|µL/L 3 EPA 625 11.2 µL/L DIETHYL PHTHALATE <MDL|µL/L 3 EPA 625 11.2 µL/L DIMETHYL PHTHALATE <MDL|µL/L 3 EPA 625 11.2 µL/L 2,4-DINITROTOLUENE <MDL|µL/L 3 EPA 625 11.2 µL/L 2,6-DINITROTOLUENE <MDL|uL/L 3 EPA 625 11.2 µL/L 1,2-DIPHENYLHYDRAZINE <MDL|µL/L

Sugar Creek WWTP IL0021971

Outfall number:	(Comp	lete onc	e for eac	ch outfall	l discharç	jing efflu	ent to w	aters of	the United	States.)		
POLLUTANT	N		IM DAIL` HARGE	Y	A۱	/ERAGE	DAILY	DISCH	ARGE			
	Conc.		Mass	Units	Conc.	Units	Mass	Units	Number of Samples	ANALYTICAL METHOD	ML/ MDL	
FLUORANTHENE	<mdl< td=""><td>µL/L</td><td></td><td></td><td><mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<></td></mdl<>	µL/L			<mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<>	µL/L			3	EPA 625	11.2 µL/	
FLUORENE	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<>	µL/L			3	EPA 625	11.2 µL/	
HEXACHLOROBENZENE	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<>	µL/L			3	EPA 625	11.2 µL/	
HEXACHLOROBUTADIENE	<mdl< td=""><td>µL/L</td><td></td><td></td><td><mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<></td></mdl<>	µL/L			<mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<>	μL/L			3	EPA 625	11.2 µL/	
HEXACHLOROCYCLO- PENTADIENE	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<>	μL/L			3	EPA 625	11.2 µL/	
HEXACHLOROETHANE	<mdl< td=""><td>µL/L</td><td></td><td></td><td><mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<></td></mdl<>	µL/L			<mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<>	μL/L			3	EPA 625	11.2 µL/	
INDENO(1,2,3-CD)PYRENE	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<>	µL/L			3	EPA 625	11.2 µL/	
ISOPHORONE	<mdl< td=""><td>µL/L</td><td></td><td></td><td><mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<></td></mdl<>	µL/L			<mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<>	µL/L			3	EPA 625	11.2 µL/	
NAPHTHALENE	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<>	µL/L			3	EPA 625	11.2 µL/	
NITROBENZENE	<mdl< td=""><td>µL/L</td><td></td><td></td><td><mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td></td><td>11.2 µL/</td></mdl<></td></mdl<>	µL/L			<mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td></td><td>11.2 µL/</td></mdl<>	μL/L			3		11.2 µL/	
N-NITROSODI-N-PROPYLAMINE	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<>	μL/L			3	EPA 625	11.2 µL/	
N-NITROSODI- METHYLAMINE	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<>	µL/L			3	EPA 625	11.2 µL/	
N-NITROSODI-PHENYLAMINE	<mdl< td=""><td>µL/L</td><td></td><td></td><td><mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<></td></mdl<>	µL/L			<mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<>	µL/L			3	EPA 625	11.2 µL/	
PHENANTHRENE	<mdl< td=""><td>μL/L</td><td></td><td></td><td><mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 μL/</td></mdl<></td></mdl<>	μL/L			<mdl< td=""><td>µL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 μL/</td></mdl<>	µL/L			3	EPA 625	11.2 μL/	
PYRENE	<mdl< td=""><td>µL/L</td><td></td><td></td><td><mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<></td></mdl<>	µL/L			<mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<>	μL/L			3	EPA 625	11.2 µL/	
1,2,4-TRICHLOROBENZENE	<mdl< td=""><td>µL/L</td><td></td><td></td><td><mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<></td></mdl<>	µL/L			<mdl< td=""><td>μL/L</td><td></td><td></td><td>3</td><td>EPA 625</td><td>11.2 µL/</td></mdl<>	μL/L			3	EPA 625	11.2 µL/	
Use this space (or a separate sheet)	to provide in	formatio	n on other	base-ne	utral comp	ounds re	quested b	y the pe	rmit writer.			
Use this space (or a separate sheet)	to provide in	formatio	n on other	pollutant	ts (e.g., pe	sticides)	requested	by the p	permit writer.			

END OF PART D.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM
2A YOU MUST COMPLETE

SPECIAL ANALYSES

FORM - 8C-1 SMSD-FILES US-EPA

TEST					 		SUG	AR CRE	EK PLAN	IT		~ <u> </u>					
Results are						2011	WASTEWA	ATED AN	INI VOED	2040							
n ppm;mg/l)				`		IOAN	VVASTEVV	TIEK AI	WALTSES	5 - ZUIU							
HTMON	JAN.	FEB.	MAR.	APF	₹.	MAY	JUN.	JUI	<u>-</u>	AUG.	SEP.	00	T.	NOV.	DEC.	A	/E
DATE			2		6		<u></u>		28				7	L			
PHOSPHATE		1.1	0		0.97				1.60				1.40				1.2
NTRATE		1.			2.0				0.4				0.8				1.2
DILS*			5		6				11				11				•
HENOLS*		0.00	8		0.006				0.008				0.021				0.0
CYANIDE* (TOTAL)		< 0.0	11	<	0.01	•		<	0.01			<	0.01			<	0.0
CYANIDE* (W.A.D.)		< 0.0	1	<	0.01		· · · · · · · · · · · · · · · · · · ·	<	0.01			<	0.01			<_	0.0
ANTIMONY -		< 0.0)1	<	0.01			· <	0.01			<	0.01			<	0.
ARSENIC		< 0.00		<	0.005			<	0.005			<	0.005			<	0.0
BARIUM	1	0.0			80.0				0.08				0.09				0
BERYLLIUM		< 0.00		<	0.001			<	0.004			<	0.001			<	0.0
CADMIUM		< 0.00		<	D.001	· · · · · · · · · · · · · · · · · · ·		<	0.001			<	0.001			<	0.0
CHROMIUM (TOTAL	1	< 0.6	nd .	<	0.01			<	0.01			<	0.01			<	0
CHROMIUM (HEX)	7	< 0.0		<	0.01			<	0.01			<	0.01			<	ō
COPPER		0.0			0.039				0.021				0.077				0.0
FLUORIDE).7		8.0				0.8				1.4				
IRON** (TOTAL)).5	·	2.5				0.6				0.7				
IRON (DISSOLVED)		,	0.2		1.4								0.2	2			
LEAD	1		02		0.04			<	0.01				0.03			<	
MANGANESE	Į.		10		0.26				0.10				0.05				(
MERCURY		< 0.00		<	0.0002			<		-		<	0.0002	2		<	
MOLYBDENUM			.01	<<	0.01			<	0.01			<				<	
NICKEL		0.0	007	.,	0.005			<	0.005				0,010	D	•	<	0.
SELENIUM	1	< 0.0		<	0.002			<	0.005			<	0.003	2		<	0
SILVER (TOTAL)			003	<	0.003			<	0.005			<	0.003	3		<	0
THALLIUM			005	<	0.005			<	0.005			<	0.00	5		<	_
ZINC	1	< 0	05 24 HOUR (0.09		-	<	-0.05				0.13	3		<	

SPECIAL ANALYSES

FORM - 8C-1 SMSD-FILES US-EPA

TEST				~~~ <u>~</u>			SUGA	AR CREEK P	LANT						
Results are ppm;mg/l)						RAW	WASTEWA	TER ANALY	SES - 2011						
MONTH	JAN.	FEB.	MAR.	APR.		MAY	JUN.	JUL.	AUG,	SEP.	ост.	NOV.	DEC.	AV	/F
DATE			8		5										_
															
PHOSPHATE		1.4			0.95								÷		1.1
NITRATE		0.	•		0.5 7								•		Q
DILS* PHENOLS*		0.02		,	, 800.0										
CYANIDE" (TOTAL)		< 0.00).005									_	0.0
CYANIDE (TOTAL)		< 0.00			0.005									<	0.
TANDE (W.A.D.)		<u> </u>	13		3.003									<_	0.
ANTIMONY		< 0.0)1	<	0.01									<	0.
ARSENIC		< 0.00			0.005									<	0.0
BARIUM		0.1			0.13									•	0.0
BERYLLIUM	ţ	< 0.00		< 1	0.001									<	0,0
CADMIUM]	< 0.00			0.001									~	0.0
O/ IDMIONI								~ 	······································						
CHROMIUM (TOTAL	<u>.</u> 5	< 0,0	01	< .	0.01					_				<	0
CHROMIUM (HEX)	Ĩ	< 0.		<	0.01									<	Õ
COPPER	1	0.0			0.087						ŕ				0.0
FLUORIDE	Ì		1.1	•	0.9			:							
IRON** (TOTAL)			2.0		1.0	,		 				* * -		 	
IRON (DISSOLVED)		,	0.2	<	0.1									<	
LEAD	']		.02	•	0.02										(
MANGANESE	l .		.26		0.16		•						•		(
MERCURY		< 0.00		< (0.0002									<	
MOLYBDENUM			.01		0.01								<u> </u>	<	
NICKEL		n e	019		0.006			•							0
SELENIUM	1		002	<	0.002									<	
SILVER (TOTAL)			002	<	0.003	. •								<	
THALLIUM			005	ζ.	0.005			•						<	
ZINC	1		22 <u>9</u>	•	0.093										ō

SPECIAL ANALYSES

FORM - 8C-2 SMSD-FILES US-EPA

TEST						SUGA	R CREEK P	ANT							
(Results are in ppm;mg/l)					SECON	DARY WAST	EWATER AI	VALYSES - 20	10						
монтн	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	ост	. NO	OV.	DEC.	AV	E
DATE			2					<u> </u>			7				
PHOSPHATE NITRATE OILS* PHENOLS* CYANIDE* (TOTAL) CYANIDE* (W.A.D.)		1.09 9.6 < 0.005 < 0.07 < 0.07	5 2 5 1							< <	1.20 13.7 2 0.007 0.01 0.01			< · ·	1.15 11.7 2 0.006 0.01 0.01
ANTIMONY ARSENIC BARIUM BERYLLIUM CADMIUM		< 0.0 < 0.00 0.0 < 0.00 < 0.00	1 5 6 1							< <	0,01 0,005 0.05 0.001 0,001			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	0.01 0.005 0.06 0.001 0.001
CHROMIUM (TOTAL CHROMIUM (HEX) COPPER FLUORIDE IRON** (TOTAL))	< 0.0 < 0.0 0.00 0)1)9 .6							< <	0.01 0.01 0.002 1.3 0.2			< <	0.01 0.01 0.006 1.0
IRON (DISSOLVED) LEAD MANGANESE MERCURY MOLYBDENUM		0.0 0.0 0.00 < 0.000	01 05 02					٠		< < < <	0.1 0.01 0.05 0.0002 0.01			<td>0.1 0.01 0.05 0.0002 0.01</td>	0.1 0.01 0.05 0.0002 0.01
NICKEL SELENIUM SILVER (TOTAL) THALLIUM ZINC		0.00 < 0.00 < 0.00 < 0.00 < 0.00	02 03 05 05					ND HEX CHR		< < < < < < < < < < < < < < < < < < <	0.001 0.002 0.003 0.005 0.05			< < < <	0.004 0.002 0.003 0.003

SPECIAL ANALYSES

FORM - 8C-3 SMSD-FILES US-EPA

TEST				· · · · · · · · · · · · · · · · · · ·			SUGA	R CRE	EK PLAN	Τ							
Results are																	
n ppm;mg/l)						TERTIA	RY WASTEV	VATER	ANALYS	ES - 2010)						
MONTH	JAN.	FEB.	MAR.	APR		MAY	JUN.	JUL		AUG,	SEP.		T.	NOV.	DEC.	A	/E.
							•	- [1				7	
DATE			2		6]		J		28	·			7				
HOSPHATE		0.6	95		0.65				0.92				1.10				0.9
ITRATE			3.7		6.0				6.4				12.7				8
DILS*		<	1	<	1				2				1			<	·
PHENOLS*		< 0.0	05	<	0.005			<	0,005			<	0.005			<	0.0
CYANIDE* (TOTAL)		< 0.	01	<	0.01			<	0.01			<	0.01			<	0.
CYANIDE* (W.A.D.)		< 0.	01	<	0.01			<	0.01			<	0.01			<	0.0
ANTIMONY	<u> </u>	< n	.01	<	0.01			<	0,01			<	0.01			<	0.
ARSENIC	į	< 0.0		<	0.005			<	0.005			<	0.005			ς.	0.0
BARIUM			.06	<	0.05				0.05				0.05				0.0
BERYLLIUM	1	< 0.0		<	0.001		•	<	0.004	•		<	0,001			<	0.0
CADMIUM		< 0.0		<	0.001			_ <	0.001			<	0.001			<	0.0
CHROMIUM (TOTAL		< 0	.01	. <	0.01			<	0.01			<	0.01			<	0.
CHROMIUM (HEX)	7		0.01	<	0.01			<	0.01			<	0.01			ς .	0
COPPER	}		006	<	0.002			<	0.005			<	0.002			<	0.0
FLUORIDE			0.4		0.7				0.7				1.1				
IRON** (TOTAL)			0.1	<	0.1				0.1				0.1			<	
IRON (DISSOLVED		<	0.1	<	0.1							<	0.1	ı		<	•
LEAD	'{		0.01	<	0.01			<	0,01			<	0.01	!		<	C
MANGANESE	1		0.05		0.07			<	0.05			<	0.05	5		<	(
MERCURY			002	<	0.0002			<	0.0002			<	0.0002	2		<	0.0
MOLYBDENUM			0.01	<	0.01			<	0.01			<	0.0	<u> </u>		<	
NICKEL		D	.010	<	0.001			<	0,005			<	0.00	t		<	0.
SELENIUM	1		.002	<	0.002			<	0.005			<	0.003	2		<	0
SILVER (TOTAL)			.003	· <	0.003			<	0.005			<	0.00	3		<	: 0
THALLIUM	}		.005	<	0.005			: <	0,005			<	0.00	5		<	. 0
ZINC	{		0.05	<	0.05			<	0.05			. <	0.0	5		<	\$

SPECIAL ANALYSES

FORM - 8C-3 SMSD-FILES US-EPA

TEST							SUGAF	R CREEK PL	ANT				,		
(Results are in ppm;mg/l)						TEDTIA	RY WASTEW	ATED ANAL	V0E0 2014						***********
in ppin,mgn)			T			ILIXIIA	TO WASTEW	ATEN ANAL	1353-2011	Т	T	- 1			
MONTH	JAN.	FEB.	MAR.	AP	R.	MAY	JUN.	JUL.	AUG.	SEP.	ост.	NOV.	DEC.	AV	/E
DATE			8		5					<u>] </u>					
PHOSPHATE		1,0	16		1,20						•				1.13
NITRATE		11			8.2										9.9
OILS*		<	5	<	5									<	5
PHENOLS*		< 0.00)5		0.005						•			<	0.005
CYANIDE* (TOTAL)		< 0.00)5	<	0.005									<	0.005
CYANIDE* (W.A.D.)		< 0.0)5	<	0.005		-, -, -							<	0.005
ANTIMONY		< 0.	31	<	0.01									<	0.01
ARSENIC	1	< 0.0		<	0.005									. <	0.005
BARIUM		0.			0.09										0.08
BERYLLIUM	ļ	< 0.0		<	0.001									<	0.001
CADMIUM		< 0.0			0.001						· · · · · · · · · · · · · · · · · · ·	• •	 	<	0.001
CHROMIUM (TOTAL	1	< 0.	01	<	0.01									<	0.01
CHROMIUM (HEX)	ĭ'		01	<	0.01									<	0.01
COPPER	ļ	0.0		<	0.002									<	0.003
FLUORIDE			0.9		0.7										0.8
IRON** (TOTAL)			0.2	<	0.1									<	0.2
IRON (DISSOLVED)			Ö.1	<	0.1									<	0.1
LEAD	' l		.01	. <	0.01									<	0.01
MANGANESE	1		.05	<	0.05									<	0.05
MERCURY	1	< 0.0		<	0.0002									<	0.0002
MOLYBDENUM			.01	<	0.01			·	· · · · · · · · · · · · · · · · · · ·				·	<	
NICKEL		n.	001	<	0.001									<	0.001
SELENIUM			002	<	0.002									<	0.002
SILVER (TOTAL)			003	<	0.003									<	
THALLIUM]		005	<	0.005									<	-1
ZINC	1		050		0.039									<	0.049

* ALL SAMPLES ARE 24 HOUR COMPOSITES EXCEPT OILS, PHENOLS, CYANIDE AND HEX CHROME.

SPECIAL ANALYSIS

FORM - 8A-1 SMSD-FILES

RECEIVING STREAMS - APRIL AND AUGUST, 2010

TEST							C	REEK AN	ID RIVE	R ANALY	SES				,_					-
AMEDIE		SUGAR UPSTI				SUGAR (DOWNST	REAM		SA	NGAMON UPSTR			SA	NGAMON DOWNST	RIVER		SA	NGAMON	RIVEF	
AMPLE DATE	date	4/6	date	9/17													· ·	VALNUTS	IKEET	
INITS		ppm (mg/l)	6/17	date	9/6 ppm (n		8/17	date		date	8/17	date	4/6	_date	8/17	date	AIG		
HOSPHATE		0.20								ppm (r	ng/I)	.		ppm (n			UAIC	ppm (i	date mo/l)	8/17
ITRATE		0.22 3.9		0.57 1,2		0.25		0.73		0,17		5.70		0.36						
ILS		2		2	<	3.9		3.2		4.9		4.1		4.7		4.09 4.0		0.40		2.7
HENOLS YANIDE (TOTAL)	<	0.005	<	0.005	<	0.005	<	0.005		0.006	<	3		3		3		4.8	<	4.
YANIDE (W.A.D.)	< <	0.01 0.01	< <	0.01	<	0.01	<	0.01	<	0.01	~	0.005 0.01	<	0.005 0.01	<	0.005	<	0.005	ς .	0.00
		0.01		0.01	<	0.01	<	0.01	<<	0.01	<	0.01	<	0.01	< <	0.01 0.01	< <	0.01	<	0.0
NTIMONY RSENIC	<	0.01	<	0.01	~	0.01	<	0.01	<	0.01			.,.,.,.	-		0.01		0.01	<	0.0
ARIUM	<	0.005	ĺ	0.009	<	0.005	<	0.005	. <	0.005	< <	0.01 0.005	<	0.01	<	0.01	<	0.01	<	0.0
ERYLLIUM	<	0.05 0.001	<	0.11 0.001	<	0.05		0.09		0.06		0.08	~	0.005 0.05	<	0.005 0.12	<	0.005	< .	
ADMIUM	<	0.001	<	0.001	/ \	0.001 0.001	\ \ \	0.001 0.001	<	0.001	<	0.001	<	0.001	<	0.001	< <	0.05		0.1
HROMIUM (TOTAL)	. <	0.01	<	0.01	<	0.01	<	0.001		0.001	< <	0.001 0.01	< <	0.001	<	0.001	<	0.001	< <	0.00
LUORIDE	<	0.002 0.4		0.027		0.005		0.006		0.050	,	0.009	•	0.01 0.022	<	0.01	<	0.01	<	0.0
RON (TOTAL)		0.4	1	0.6 1.4		0.4 0.3		0.8		0.4		0.5		0.022		0.006 0.5		0.006		0.01
RON (DISSOLVED) EAD		0.1	l	0,5		0.3		0.9		1.6 1.0		1.7		0.9		1.8		2.2		0. 1.
LANGANESE	<	0.01 0.05	<	0.01	<	0.01	<	0.01		0.01	<	0.5 0.01	<	0.5 0.01	<	0.6		1.1		o.
IERCURY	<	0.002	\ <	0.28 0.0002	<	0.06 0.0002		0.18		0.11		0.17	•	0.07	~	0.01 0.18	<	0.01	<	0.0
OLYBDENUM	<	0.01	,	0.10		0.0002	<	0.0002 0.07	<	0.0002	< <	0.0002	<	0.0002	<	0.0002	<	0.0002	<	0.1 0.000
ICKEL ELENIUM		0.001]	0.003		0.001		0.002		0.001	<	0.01 0.015	<	0.01	<	0.01	<	0.01	<	0.00
ILVER	<	0.002	\ \ \	0.002	<	0.002	<	0.002	<	0.002	< -	0.002	<	0.003	<	0.013 0.002	_	0.003		0.01
HALLIUM	<	0.005	~	0.005	٧ ٧	0.003 0.005	<	0.003 0.005	< <	0.003	. <	0.003	~	0.003	<	0.002	< <	0.002 0.003	< <	0.00
INC	<	0.05	<	0.05	<	0.05	. <	0.005	<	0.005 0.05	< <	0.005 0.05	<	0.005	<	0.005	<	0.005	<	0.00
					L						•	0.03	-	0.05	<	0.05	<	0.05	<	0.0

SPECIAL ANALYSIS

RECEIVING STREAMS - APRIL AND AUGUST, 2011

FORM - 8A-1 SMSD-FILES

TEST		CREEK	AND RIVER ANALYSES		
	SUGAR CREEK UPSTREAM	SUGAR CREEK DOWNSTREAM	SANGAMON RIVER UPSTREAM	SANGAMON RIVER DOWNSTREAM	SANGAMON RIVER WALNUT STREET
SAMPLE DATE	April 5				WILHOT STREET
UNITS	ppm (mg/l)	April 5 ppm (mg/l)	April 5 ppm (mg/l)	April 5	April 5
PHOSPHATE	0.06	0.31		ppm (mg/l)	ppm (mg/l)
NITRATE DILS PHENOLS CYANIDE (TOTAL) CYANIDE (W.A.D.)	4.9 < 5 < 0.005 < 0.005 < 0.005	5.0 5.0 5.0 6.005 6.005 7.005	1.10 10.3 < 5 < 0.005 < 0.005 < 0.005	0.71 9.2 < 5 < 0.005 < 0.005 < 0.005	0.70 9.0 < 5 < 0.005 < 0.005
ANTIMONY ARSENIC BARIUM BERYLLIUM CADMIUM (TOTAL) COPPER FLUORIDE IRON (TOTAL) IRON (DISSOLVED) LEAD MANGANESE MERCURY MOLYBDENUM NICKEL SELENIUM SILVER THALLIUM ZINC	< 0.01 < 0.005	< 0.01 < 0.005	< 0.01 < 0.005	 0.01 0.005 0.12 0.001 0.001 0.027 0.3 0.6 0.1 0.01 0.08 0.0002 0.006 0.002 0.003 0.005 0.025 	< 0.005 < 0.01 < 0.005

Sugar Creek Above, Plant Effluent and Creek Below Fecal Coliform 2010 through present

			2010 through press	ent
	Creek		Plant	Creek
Date	Above		Effluent	Below
1-12-20	10	40	700	560
2-2		50	1230	90
2-17		100	1175	90
2-23		40	2300	130
3-2		10	1230	195
3-9		0	6100	390
3-16		10	1330	300
3-23		20	520	80
3-2.5 3-30		10	330	440
4-6		60		
			900	450
4-20		120	330	150
4-27		470	830	1000
5-4		70	3500	110
5-11		235	7300	2050
5-18		735	2100	680
5-25		125	410	1000
6-2		670	9900	11700
6-8		390	3200	170
6-15		420	10000	1485
6-22		1900	14700	2105
6-2 9		250	1980	460
7-7		530	2000	420
7-13		230	1510	260
7-27		175	5800	160
8-3		230	1600	160
8-10		180	1075	280
8-17		160	415	745
8-24		385	320	
8-31		490	5300	5800
9-8		220	1385	680
9-14		150	470	340
9-21		150	6300	870
9-28		1150	290	4900
10-5		95	2300	500
10-12		70	140	210
10-19		60	818	150
10-26		73	62	2000
11-2		90	140	740
11-9		110	20000	2200
11-16		240	470	250
12-7		110	1800	200
12-21		50	660	250
1-4-2011		110	530	130
1-25		70	1050	250
2-15		120	2900	330
2-23		10 .	2000	50
3-1		10	845	10
3-8		10	4300	420
3-15		10	5600	60
3-22		10	760	550
3-22		20	290	10
4-5		140	825	410
4-3 4-12		260	260	1090
4-12 4-20		200 1035	770	1638
		160	1860	
4-26				1140
5-3 5-10		50 50	730	1600
5-10		60	260	80
5-17		110	10	560
5-24		140	370	470

Springfield Metro Sanitary District

Sugar Creek facility and River Phosphorus 2010

	Sugar Cr	eek facility	Creek	Creek	River	River
	B	Tartlance	Above	Below	Above	Below
Month	Raw	Tertlary	ADOVE	BEIOW	75010	<u> </u>
Jan	2.07	1.08	0.24	1.00	0.48	0.65
	2.51	1.10	0.34	1.00	0,40	3,55
Ì	2.12	2.27				
	1.04	1.01		0.53	- 0.78	0.47
Feb	3.10	1.87	0.47	0.53	- 0.78	0,47
	1.29	0.85			4.07	0.00
	2.02	1.08	0.54	0.59	1.07	0.68
	1.05	0.88	0.51		0.82	0.90
March	1.60	0.75	0.45	1	0.90	0.54
	2.30	1.06	0.24		0.70	0.53
	2.61	0.85	0.46		0.36	0.44
April	2.01	0.74	0.34	0.54	0.34	0.32
-	2.83	0.95			,	
	2.64	1.01	0.31	0.87	0.44	0.59
	1.47	1.10	0.42	0.29	0.64	0.74
May	2.44	1.01	0.26		0.54	0.51
,	3.11	0.94	0.54		0,90	0.56
	1.29	0.84	0.38	0.76	1.11	0.72
	2.22	0.60	0.13	0.24	0.53	0.44
June	2.05	0,82	0.23	0.86	1.00	0.85
	2.33	0.80	0.24	0.30	1.10	1.02
	1.14	0.70	0.27	0.21	0.39	0.44
	1.54	0.47	0.19	0.15	0.33	0.32
	1.98	1.17	0.24	0.63	0.60	0.47
July	3.04	0.92	0.25	0.38	1.12	0.76
,	3.26	1.12	0.21	0.39	1.25	0.97
	0.96	0.95				
	1.35	1.08	0.35	0.35	0.54	0.64
Aug	2.19	0.99	0.42	0.69	1.18	0.65
,	2.95	1.05	0.23	0.52	2.09	1.57
	2.37	1.25	0.29	0,58	5.02	3.44
	2.26	1.31	0.48	0.68	5.58	1.52
	3.05	1.38	0.41	0.58	3.94	2.06
Sept	2.12	1.20	0.46	0.67	1.26	0.85
Jept	2.13	0.91	0.43	0.46	3.06	1.13
	3.48	1.37	0.48	0.63	3.60	1.33
	4.84	1.45	0.58	0.64	2.43	1.15
Oct	3.02	1.12	0.45	1,12	3.44	1.60
OCL	4.41	1.05	0.63	0.36	0.72	1.82
	4.13	1.68	0.33	0.86	4.52	2.60
	3.32	1.89	0.43	0.86	4.65	3.07
Nov	4.60	2.29	0.34	1.51	5.04	3.44
1404	4.01	1.95	0.27	0.60	5.68	4.33
	4.87	2.14	0.28		7,34	4.53
	5.46	2.60	0.37	1.19	6.84	5.23
	2.78	1.16	0.27	0.67	1.63	2.11
Doo	3.87	1.14	0.14	0.20	0.84	0.40
Dec	3.81	2.07	•			}
	3.07	1.18	0.09	0.63	1.75	0.82
	3.30	2.74	0.00			
	3.30	4.77		L		·

Creek Above = Sugar Creek Above Plant Discharge Point Creek Below = Sugar Creek Below Pant Discharge Point River Above = Sangamon River Above Confluence With Sugar Creek River Below = Sangamon River Below Confluence With Sugar Creek

2010 Sugar Creek Data for Stream Above Sugar Creek Facility

Un-lonize		Fecal	Suspended						
Ammoni	Ammonia	Coliforms	Sollds	BOD5	D.O.	рН	T	~ 1	
0.00	1.1	40	24	3	12.3	7.5	Temp 6.0	Time	Date
0.00	0.2	50	10	3	12.5	7.4		8:01	1-12
0.00	0.3	100	27	4	12.0	7.3	4.0	8:15	2-2
0.00	0,5	40	4	4	12.4	7.5 7.5	1.7	8:45	2-17
0.00	0.5	1Õ	9	3	13.3	7.5 7.6	4.2	8:15	2-23
0.00	0.5	0	6	3	11.7		4.5	8:15	3-2
0.00	0.1	10	10	2	11.7	7.7	7.9	8:00	3-9
0.00	0.1	20	8	3		7.7	8.5	7:55	3-16
0,00	0.1	10	4	4	10.8	8.0	9.4	8:33	3-23
0.00	0.1	60	9		11.2	8.2	10.4	8:17	3-30
0,00	0.4	120	25	5	9.5	8.3	16.0	8:40	4-6
0.00	0.2	470		2	7.3	7.5	14.9	7:50	4-20
0.00	0.1	70	25	3	7.2	7.7	16.0	8:18	4-27
0.00	0.1	235	29	2	0.8	7.9	18.8	9:00	5-4
0.00	0.1		37	5	8.1	8.3	17.0	8:40	5-11
0.01	0.1	735	126	3	7.8	8.3	17.3	8:20	5-18
0.03	0.1	125	30	6	7.3	8.6	23.0	8:15	5-25
0.02	0.1	670	39	5	6.0	9.0	26.1	7:48	 i-2
0.01	0.1	390	26	4	5.0	8.8	25.0	7:30	5-8
0.03	0.1	420	11	1	6.1	8.2	27.0	8:27	i-15
0.00		1900	30	3	6.0	8.9	29.0	8:06	5-22
0.03	0.1	250	11	2	3.8	7.7	26.8	8:15	5-29
0.02	0.2	530	24	2	3.2	8.4	28.2	8:10	7-7
0.02	0.2	230	1	1	1.3	8,2	28.3	7:56	7-13
0.04	0.1	175	21	3	5.5	8.8	29.8	8:30	r-27
0.00	0.1	230	18	1	2.3	2,8	29.6	8:30	1-3
0.01	0.2	180	15	1	1.5	7.6	29.2	8:45	3-10
0.01	0.2	160	43	3	2.9	7.9	26.8	8:01	3-17
0.00	0.1	385	29	2	5.6	8.2	27.3	8:03	1-24
0.00	0.2	490	6	2	3.1	7.6	26.7	7:49	-2 4 -31
0,00	0.1	220	25	2	5.9	8.4	23,6	7:30	-8 -8
	0.1	150	24	2	6.2	7.5	22.4	7:45	
0.02	0.3	150	127	3	5.5	8.2	25.4	8:00	-14
0.00	0.1	1150	30	2	6.5	7.5	20.5	8:35	-21
0.00	0.1	95	8	. 1	6.9	7.9	15.9	8:00	-28 o.c
0.00	0.2	70	20	2	6.2	. 7.9	18.8	8:00	0-5
0.00	0.1	60	22	2	6.7	7.3	14.1		0-12
0.01	0.2	73	29	4	5.9	8,3	18.2	8:30 8:36	0-19
0.00	0.1	110	6	4	12.6	7.4	4.6	8:26	0-26
0,00	0.9	50	5	4	13.0	6.9	4.0 4.9	8:00	2-7
0.01	0.2	262	24	3	7.5	8.0	18.1	7:35 Average	2-21

< removed in ammonia, un-ionized ammonia and fecal coliform columns to make calculations possible.

2010 Sugar Creek Data for Stream Below Sugar Creek Facility

	2	1010 Sugar Creek	Data for Stream l	seiom 208s	ir Creek rac	Suspended	Fecal		Un-ionized
		-	pН	D.O.	BOD5	Solids	Coliforms	Ammonia	Ammonia
Date	Time	Temp	7.9	11.3	2	20	550	0.8	0.00
1-12	8:20	1.9	7. 9 7.9	12.5	3	17	90	0.2	0.00
2-2	8:35	3.4		12.3	3	27	90	0.4	0.00
2-17	9:28	2.7	8.1	12.8	3	7	130	0.4	0.00
2-23	8:33	3.4	7.8	12.6	3	18	195	0.7	0.00
3-2	8:30	4.2	8.0	7.4	3	11	390	0.5	0.01
3-9	8:21	11.3	8.0	7.4 11.2	2	15	300	0.1	0.00
3-16	8:10	8.4	8.1		3	9	80	0.1	0.00
3-23	8:50	9.3	8.2	10.3	3	10	440	0.1	0.00
3-30	8:45	10.3	8.4	11.1	5	32	450	0.1	0.01
4- 6	9:00	16.3	8.6	9.3	2	32	150	0.3	0.00
1 -20	8:05	13.4	7.8	8.4	4	44	1000	0.4	0.0
1-27	8:32	15.6	8.0	6.9		62	110	0.1	0.00
5-4	9:10	18.1	8.4	7.8	3	66	2050	0.3	0.0
5-11	8:15 .	16.0 .	8.3	8.0	6	52	680	0.4	0.0
5-18	9:00	17.2	8.6	8.3	5	45	1000	0.1	0.0
5-25	8:32	23.0	8.8	6.9	6		11700	0.1	0.0
-2	8:05	25.5	8.9	6.1	6	128	1700	0.1	0.0
-8	7:45	24.0	8.8	4.8	3	37	1485	0.1	0.0
-15	8:45	27.0	8.4	6.3	2	19	2105	0.1	0.0
i-22	8:18	28.0	8.7	4.8	3	30	460	0.1	0.0
-29	8:37	26.8	7 . 9	3.7	1	12	450	0.1	0.0
7- 7	8:25	27.9	8.1	3.3	2	43		0.3	0.0
-13	8:12	25.9	7.9	3.9	1	19	260	0.2	0.0
-27	8:40	29.1	9.1	5.9	3	18	160	0.1	0.0
1-3	8:40	28.9	8.6	3.9	1	43	160	0.1	0.0
-10	9:00	27.1	7.8	4.0	2	49	280	0.3	0.0
-17	8:20	24.9	7.6	3.5	3	38	745	0.1	0.0
-24	8:22	27.0	8.5	5.9	2	53	470	0.2	0.0
-31	8:03	25.7	7.9	4.3	2	18	5800	0.2	0.0
-8	8:07	23.0	8.2	6.0	2	47	680	0.1	0.0
-14	8:02	22.7	8.1	6.3	3	• 46	340	0.1	0.0
-21	9:00	25.6	8.5	6.5	3	. 74	870	0.2	0.0
-28	8:50	19.8	7.9	6.4	3	57	4900		0.0
0-5	8:20	15.2	8.0	7.0	1	12	500	0.1 0.2	0.0
0-12	8:26	19.5	7.8	5.8	2	32	210		0.0
0-19	8:54	13.5	7.7	6.7	1	20	150	0.2	0.0
.0-26	8:38	18.4	7.8	4.7	5	73	2000	0.9	0.0
.2-7	8:16	5.9	7.7	12.5	4	5	200	0.1	
2-21	7:52	4.2	7.6	11.5	3	1	250	0.6	0.0
	Average	17.7	8.2	7.5	2.9	34	1080	0.2	0,0

< removed in ammonia, un-ionized ammonia and fecal coliform columns to make calculations possible.

2010 Sangamon River Data for River Above Sugar Creek Sample

Un-lo		Fecal	Suspended				010 Sangamon Ri		
Amm	Amm.	Coliforms	Solids	BOD5	D.O.	Нa	Temp ·	Time	D-4-
(0.2	310	27	3	13.1	8.7	0.6	8:29	Date 1 12
C	0.1	140	32	3	12.3	8.1	1.8	8:45	1-12
(0.1	70	23	4	13.7	8.4	1.6	9:05	2-2
(0.6	4300	45		13.5	8	1.0	9:05 8:45	2-17
(0.3	95	37	3	14.1	8.2	2.7	8:45 8:45	2-23
(0.3	70	24	3	4,9	8.2	12.8		3-2
(0.1	180	48	2	11.5	8.3		8:37	3-9
(0.1	120	25	2	9.0	8.2	8.0 9.0	8:15	3-16
C	0.1	200	48	3	11.4	8,3		9:06	3-23
(0.1	60	48	2	9.0	8.1	9.3	8:55	3-30
(0.1	90	20	4	9.4	8.5	16.8	9:18	1-6
(0.1	610	51	3	3.4 8.4	8.2	15.0	8:15	1-20
(0.1	270	55	2	8.2	8.3	14.8	8:45	1-27
(0.1	137	56	3	8.0		18.8	9:25	5-4
(0.1	3400	124	4	8.2	8.4	17.0	8:56	5-11
(0.4	150	52	2		8	14.4	8:37	5-18
(0.1	370	158	2	7.6 8.6	8.3	22.0	8:41	5-25
(0.1	240	94	1		8.3	23.5	8:25	-2
C	0.1	1745	54	2	6.8	8.2	23.0	8:00	-8
C	0.1	270	38	1	6.1	8	24.0	8:55	-15
	0.1	210	53	2	5.0	7,9	26.0	8:32	-22
C	0.1	170	53 68		5.8	8	25.4	8:49	-29
C	0.1	190	53	1 .	6.5	8.2	26.8	8:50	-7
C	0.1	120	82	3	7.1	8.4	26.0	8:22	-13
Č	0.1	110	44	1	6.4	8.3	27.7	8:50	-27
(0.1	80	44	3	7.3	8.4	26.3	8:55	-3
C	0.2	.210	58	4	6.5	8.5	27.8	9:11	-10
C	0.1	360	51	3	5.7	8.2	25.8	8:33	-17
Ċ	0.1	200	53	3	6.8	8.3	25.1	8:37	-24
Ċ	0.1	1900	70	4	6.2	8.4	24.2	8:15	-31
Č	0.1	370	70 29	2	6.6	8.2	20.9	8:17	·8
Ċ	0.1	460	39	1	7.1	8.2	21.0	8:12	14
(0.1	430		3	6.7	8.4	22.4	8:25	-21
Č	0.1	170	36	2	8.2	8.2	16.2	9:00	-28
Č	0.1		5	1	9.0	8.3	12.1	8:40)-5
C	0.1	290	18	1	7.9	8.3	17.9	8:35	0-12
Ċ	0.1	20	13	3	9.1	8.2	17.8	9:08	0-19
Č		55	40	3	7.2	8.1	17.2	8:57)-26
Ċ	0.1	360	11	3	15.4	8.1	1.9	8:30	2-7
	0.5	160	1	3	13.3	8.2	2.4	8:04	2-21
Ĺ	0.1	479	47	2.5	8.7	8.2	16.6	verage	

< removed in ammonia, un-ionized ammonia and fecal coliform columns to make calculations possible.

2010 sangamon River Data for River Above Spring Creek Sample

	4	2010 sangamon R	Wer Data for Kive	st Woode 25	HILL CIGEN	Suspended	Fecal		Un-lonized
	***	Taus	pH	D.O.	BÓDS	Solids	Coliforms	Amm.	Ammonia
Date	Time	Temp 2.2	8.5	12.3	3	23	1:40	0.2	0.00642
1-12	8:38	1.8	8.1	13.0	4	34	150	0.1	0.00100
2-2	9:00		8.3	13.4	3	13	60	0.2	0.00394
2-17	9:18	1.7 1.8	7.9	13.4	4	59	6700	8.0	0.00640
2-23	9:00	3.5	8.1	13.7	4	57	130	0.2	0.00290
3-2	9:00		8.2	5.2	3	54	100	0.3	0.01095
3-9	8:50	12.5	8.1	11.2	2	46	100	0.1	0.00212
3-16	8:25	8.3	8.2	10.4	2	29	40	0.1	0.00284
3-23	9:21	9.2	8.2	11.3	3	73	330	0.1	0.00291
3-30	9:07	9.5	8.2	9.4	2	41	220	0.1	0.00500
4-6	9:48	16.1	. 8.4	9.5	3	39	80	0.1	0.00700
4-20	8:25	14.8	8.0	7.9	4	130	940	0.3	0.00825
4-27	8:55	14.7	8.2	7.9	2	68	240	0.1	0.00500
5-4	9:30	18.1	8.2 8.3	9.2	3	73	587	0.1	0.00500
5-11	9:05	15.0	8.2	7.8	4	114	2500	0.1	0.00478
5-18	8:48	16.2		7.5 7.5	3	69	170	0.1	0.00900
5-25	8:52	22.0	8.3	7.3 6.2	2	101	2205	0.1	0.01000
5-2	8:40	24.0	8.3	7.6	1	63	210	0.1	0.00500
5-8	8:15	23.0	8.1 8.0	6.0	1	71	3200	0.1	0.00530
5-15	9:05	24.0		5.1	1	57	1275	0.1	0.00500
5-22	8:58	26.0	7.9	5.1	1	43	440	0.1	0.00700
5-29	9:12	25.6	8.1	5.7	1	78	130	0.1	0.00786
7-7	9:15	26.7	8.1	6.5	2	58	180	0.1	0.00927
7-13	9:10	26.0	8.2		2	95	790	0.1	0.01000
7-27	9:10	27.5	8.2	5.9 6.1	2	71	90	0.1	0.00800
3-3	9:15	26.3	8.1	6.1	2	35	160	0.1	0.01300
3-10	9:20	27.6	8.3	5.4	3	62	200	0.1	0.00700
3-17	8:45	25.9	8.1	5.4 5.3	3	155	675	0.1	0.00500
3-24	8:54	25.3	7.9		2	52	290	0.1	0.00672
3-31	8:25	24.3	8.1	5.8 5.5	2	104	1600	0.1	0.00700
9-8	8:32	21.1	8.2		2	57	890	0.1	0,00300
3-14	8:28	20.7	7.9	6.6 6.5	2	54	240	0.1	0.00900
-21	8:45	22.9	8.3	6.5 7.3	2	49	2500	`0.1	0.00424
3-28	9:20	17.6	8.1	7.3 8.6	1	12	140	0.1	0.00400
0-5	8:50	13.0	8.2		1	28	160	0.1	0.00500
10-12	8:47	17.4	8.2	7.8	1	16	60	0.1	0.00300
10-1 9	9;24	12.1	8.1	8.8	4	120	81	0.2	0.00609
10-26	9:12	16.1	8.0	6.5		15	470	0.1	0.00105
2-7	8:48	2.3	8.0	12.9	3 3	15	90	0.2	0.00244
12-21	8:14	1.4	8.1	13.5	2	60	732	0.14	0.00583
	Average	16.5	8.1	8.3	2	90	,34	0.27	

< removed in ammonia, un-ionized ammonia and fecal colliform columns to make calculations possible.

2010 River Data for River Below Spring Creek #24 Sample

į Ui	Fecal	ıspended	. _ ,		Mac. peron ph	1010 River Data for	4	
	Coliforms	Solids	BOD5	D.O.	рН	Temp	Time	Data
	240	6	4	13.6	7.7	0.2	9:00	1-12
	250	34	4	13.3	7.9	1.5	9:00	2-2
	100	18	. 3	13.5	7.7	1.5	9:00	2-2
	460	136	4	12.5	7.3	2.2	8:50	2-17
70 0.2	70	40	3	12.5	7.7	2.9	8:50	2-23 3-2
	280	18	3	11.7	7.6	5.4	8:50	
160 0.1	160	32	4	10.4	7.8	8.1	8:25	3-9
	160	34	3	10.9	7.8	8.9	7:35	3-16
140 0.5	440	98	3	10.6	7.7	9.3		3-23
100 0.1	1400	72	3	9.1	7.9	15.4	8:25	3-30
230 0.1	230	32	3	9.6	7.8	14.5	7:35	4-6
	1375	100	3	8.5	. 7.7	14.5 14.6	7:50	4-20
	270	62	3	8.6	8.0	18.2	9:00	4-27
	4700	60	4	9.4	7.9		9:33	5-4
	4500	130	3	8.7	8.0	15.2 15.0	10:30	5-11
	1800	64	4	8.0	8.1		7:50	5-18
.00 0.1	7100	80	3	7.4	7.7	21.8	8:35	5-25
	920	60	2	7.2	8.0	22.9	8:55	5-2
	3500	58	2	6.6	7.8	22.7	8:55	5-8
	1800	24	2	5.5	7.5 7.5	24.0	9:50	5-15
	490	20	2.	4.1	7.5 7.5	25.8	7:40	5-22
	255	56	2	5.3	7.3 7.8	25.2	8:30	5-29
	250	62	2	7.7	7.8 7.8	26.6	8:30	7-7
	610	108	2	5.9		25.7	8:30	7-13
	900	51	3	7.3	7.8	27.3	8:30	7-27
and the second of the second o	290	49	4	7.5 7.6	7.7	25.9	8:45	3-3
	860	43	, 4	6. 1 .	8.3	27.2	9:10	3-10
	2600	22	2	6,2	8.0	26.2	9:15	3-17
	930	57	3	7.2	7.2	25.0	9:15	-24
	1500	53	3	7.1	7.7	23.0	7:40	1-31
	630	21	4		7.0	21.2	7:25	-8
	740 .	27	3	8.0	7.8	21.0	8:35	-14
	430	32	2	7.2	7.7	22.6	9:00	-21
	570	10		7.8	7.8	17.2	8:30	-28
	580	24	1	9.2	7.8	13.6	9:00	0-5
	150	4	2	8.0	7.9	17.8	8:50	0-12
	300		2	9.5	7.7	13.1	8:00	0-19
	340 340	26	3	8.1	7.9	16.5	8:16	0-26
	270	21	6	15.4	7.9	2.0	8:40	2-7
		13	3	13.3	7.9	1.6	8:50	2-21
00 U.10	1088	48	3	9.0	7.8	16.1	verage	

< removed in ammonia, un-lonized ammonia and fecal coliform columns to make calculations possible.

Sugar Creek WWTP IL0021971

Form Approved 1/14/99 OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity
 test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results
 of a toxicity reduction evaluation, if one was conducted.

of a toxicity reduction evaluation, if one was conducted • If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E 4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E. If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.							
E.1. Required Tests.							
Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years. 9chronic 9acute *Results submitted. See following pages for results							
E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.							
	Test number:	Test number:	Test number:				
a. Test information.							
Test species & test method number		,					
Age at initiation of test							
Outfall number							
Dates sample collected							
Date test started							
Duration							
b. Give toxicity test methods followed.							
Manual title							
Edition number and year of publication							
Page number(s)							
c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.							
24-Hour composite							
Grab							
d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)							
Before disinfection							
After disinfection							
After dechlorination							

FACILITY NAME AND PERMIT NUMBER	₹:		Form Approved 1/14/99
Sugar Creek WWTP IL0021971			OMB Number 2040-0086
	Test number:	Test number:	Test number:
e. Describe the point in the treatment	nt process at which the sample was o	collected.	
Sample was collected:			!
f. For each test, include whether the	test was intended to assess chronic	toxicity, acute toxicity, or both.	
Chronic toxicity			
Acute toxicity			
g. Provide the type of test performed	d.		<u> </u>
Static			
Static-renewal			
Flow-through	·		
h. Source of dilution water. If labora	atory water, specify type; if receiving	water, specify source.	
Laboratory water			
Receiving water			
i. Type of dilution water. It salt wate	r, specify "natural" or type of artificial	l sea salts or brine used.	
Fresh water			
Salt water			
j. Give the percentage effluent used	for all concentrations in the test series	es.	
			i
k. Parameters measured during the	test. (State whether parameter meet	ts test method specifications)	
рН		:	
Salinity			
Temperature			
Ammonia			
Dissolved oxygen	,		
I. Test Results.	•		
Acute:			
Percent survival in 100% effluent	%	%	%
LC ₅₀			
95% C.I.	%	%	%

%

Control percent survival

Other (describe)

%

%

FACILITY NAME AND PERMIT NUMBE Sugar Creek WWTP IL0021971	R:		Form Approved 1/14/99 OMB Number 2040-0086			
Chronic:						
NOEC	%	%	%			
IC ₂₅	%	%	%			
Control percent survival	%	%	%			
Other (describe)						
m. Quality Control/Quality Assurar	nce.					
Is reference toxicant data available?						
Was reference toxicant test within acceptable bounds?						
What date was reference toxicant test run (MM/DD/YYYY)?						
Other (describe)	·					
E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation? Yes ✓ No						
END OF PART E. REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.						

Illinois Environmental Protection Agency Division of Water Pollution Control 1021 North Grand Avenue East Post Office Box 19276 Springfield, IL 62794-9276 5/22/2007

Attention: Compliance Assurance Section, Mail Code #19

Attached please find the bioassay report for Sugar Creek permit IL0021971 plant discharges for April 2007. The tests were completed in accordance with permit special conditions. The results show no toxicity for plant effluent sample. This is the last sample in the series.

If there are any questions about this report please contact Jeff Slead at the (217) 528-0491

Sincerely,

Jeff W. Slead Operations Supervisor

BIOASSAY REPORT

ACUTE TOXICITY TESTS

Conducted April 25 through 29, 2007

Prepared for
Springfield Metro Sanitary District
Sugar Creek Wastewater Treatment Plant
Springfield, Illinois

Prepared by

S-F ANALYTICAL LABORATORIES
Bioassay Laboratory
6125 West National Avenue
Milwaukee, WI 53214

Lab I.D. No. 070449

May 2007

Summary

S-F Analytical Laboratories conducted acute toxicity tests on an effluent sample provided by Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays were conducted from April 25 through 29, 2007, as part of NPDES compliance monitoring for the State of Illinois. *Ceriodaphnia dubia* and fathead minnows were used as the test organisms. The following is a summary of the test results:

,	Acute Toxicity/Survival		
Test Media	Ceriodaphnia dubia	Fathead Minnow	
Laboratory Control	Pass	Pass	
Sugar Creek Control	Pass	Pass	
100% Effluent	Pass	Pass	
LC ₅₀	>100%	>100%	

For NPDES compliance purposes, the results of the tests show that:

- The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC_{50} value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Introduction

This report presents the results of the laboratory acute toxicity tests conducted by S-F Analytical Laboratories on an effluent sample provided by Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays used Ceriodaphnia dubia and fathead minnows as the test organisms and were performed from April 25 through 29, 2007, as part of NPDES compliance biomonitoring for the State of Illinois.

Methods

All laboratory methods, including organism culture, sample handling, test procedures, and data analyses, were in accordance with the recommendations of the U.S. Environmental Protection Agency (EPA) [1], the S-F Analytical Bioassay Laboratory Standard Operating Procedures, and the Illinois Environmental Protection Agency (IEPA) biomonitoring requirements as specified in the Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant NPDES permit.

Sample Collection and Handling

A photocopy of the chain-of-custody form is included in Appendix B. One 24-hour composite effluent sample and one receiving water grab sample were used as follows:

Description	Sample No.	Date Collected	Date Tested
Sugar Creek	070449.01	4/24/07	4/25-29/07
Effluent	070449.02	4/23-24/07	4/25-29/07

The samples were collected by Springfield Metro Sanitary District personnel and were shipped on ice to the S-F Analytical Bioassay Laboratory. Upon arrival, samples were logged in, physicochemical characterizations were conducted, and they were prepared for testing. Unused portions were refrigerated (4°C) for later use.

Test Organisms

All test organisms were cultured at the S-F Analytical Bioassay Laboratory.

Test Procedures

Bioassays

Bioassay test conditions are summarized in Tables 1 and 2.

Physicochemical Monitoring

Total alkalinity, hardness, and total ammonia were measured initially on each sample. Total residual chlorine was measured initially on the effluent sample. Total alkalinity and hardness were measured once in the laboratory control.

Dissolved oxygen (DO), pH, and conductivity were measured initially and thereafter in all test solution renewals. DO and pH were measured in one test chamber or composite of each test solution after 48 and 96 hours.

Bioassay incubator temperature was electronically monitored hourly by thermocouple and data logger and a 24-hour summary of mean values was recorded.

Data Analysis

Pass/Fail criteria were applied to acute toxicity data. When appropriate an LC₅₀ (median lethal concentration) was calculated using a computer program.

Acute toxicity was defined according to the following IEPA criteria:

• Less than 50 percent survival of test organisms in 100 percent effluent at test termination (48 hours for *Ceriodaphnia dubia*; 96 hours for fathead minnows). That is, the LC₅₀ less than 100 percent for either species.

Quality Assurance

Part of the quality assurance and quality control (QA/QC) program at the S-F Analytical Bioassay Laboratory includes the performance of organisms concurrently tested in laboratory media. Tables 1 and 2 present the test acceptability criteria for laboratory control data. The results of the laboratory control tests are listed in Table 3.

In addition, other QA/QC procedures include performing monthly reference toxicant tests using reagent-grade sodium chloride. The results of reference toxicant tests conducted during the past 20 months on the appropriate test organisms are summarized in Appendix C.

Summary of Test Conditions for the Ceriodaphnia Acute Bloassay Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois April 25 through 27, 2007

1.	Test organism	Ceriodaphnia dubia (Crustacea: Cladocera)
2.	Test type	Static nonrenewal
3,	Age of test organisms	Less than 24 hours
4.	Test chamber size	30 mL
5.	Test solution volume	25 mL
6.	Renewal of test solutions	None
7.	Number of replicate chambers per solution	4
8.	Number of test organisms per chamber	5
9.	Primary control/dilution water	Receiving water; Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
11.	Effluent concentrations	6.25, 12.5, 25, 50, and 100 %
12.	Temperature	20 ± 1°C
13.	Feeding regime	None
14.	Aeration	None
15.	Test duration	48 hours
16,	Sampling scheme	One 24-hour composite effluent sample and one receiving water grab sample. Maximum holding time of 36 hours between completion of collection and initial use for each sample. Laboratory water used was prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC ₅₀
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control.

Summary of Test Conditions for the

Fathead Minnow Acute Bioassay Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois April 25 through 29, 2007

I.	Test organism	Pimephales promelas (Osteichthyes: Cyprinidae)
2.	Test type	Static renewal
3.	Age of test organisms	11 days old
4.	Test chamber size	500 mL
5.	Test solution volume	250 mL
6.	Renewal of test solutions	At 48 hours
7.	Number of replicate chambers per solution	2 .
8.	Number of test organisms per chamber	10
9.	Primary control/dilution water	Receiving water; Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
11.	Effluent concentrations	6:25, 12.5, 25, 50, and 100 %
12.	Temperature	20 ± 1°C
13.	Feeding regime	0.15 mL live brine shrimp per container at 48 hours, prior to solution renewal.
14.	Aeration	None, unless DO concentration falls below 40% saturation (them, continuous at a rate not exceeding 100 bubbles per minute)
15.	Test duration	96 hours
16.	Sampling scheme	One 24-hour composite effluent sample and one grab sample of receiving water. Maximum holding time of 36 hours between collection and initial test use for each sample. Laboratory water prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC ₅₀
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control

Results

Photocopies of laboratory data and computer printouts of the statistical analyses are found in Appendix A. There were no excursions from the protocols and all test conditions were within the limits required by the EPA. The results of the tests are summarized below.

Acute Bioassays

Table 3 presents the results of the acute bioassays. The effluent sample was not acutely toxic to Ceriodaphnia dubia at the 100 percent concentration using the 50 percent lethality criteria. The LC_{50} analysis was not conducted, but the value would be greater than 100 percent.

No acute toxicity was demonstrated to fathead minnows in the 100 percent effluent concentration. The LC_{50} analysis was not conducted, but the value would be greater than 100 percent.

Laboratory control and receiving water data were acceptable in both tests.

Table 3 Summary of Results of Acute Bioassays Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois April 25 through 29, 2007

Mean Percent Survival

Test Media	Ceriodaphnia dubia	Fathead Minnow
Laboratory Control	100	100
Sugar Creek Control	100	100
6.25%Effluent	100	100
12.5% Effluent	100	100
25% Effluent	100	100
50% Effluent	100	100
100% Effluent	100	100
LC ₅₀	>100%	>100%

Physicochemical Data

All physicochemical parameters measured satisfied the bioassay requirements (see Appendix A).

Conclusions

The results of the laboratory bioassays conducted on the effluent sample collected by Springfield Metro Sanitary District personnel on April 24, 2007 for NPDES biomonitoring, show the following:

- The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Reference

1. Weber, C.I. (ed.). 1993. Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (Fourth Edition). EPA/600/4-90/027F. U.S. EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio. 293 p.

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Division of Water Pollution Control 1021 North Grand Avenue East

Post Office Box 19276

Springfield, IL 62794-9276

Attention: Compliance Assurance Section, Mail Code #19

Attached please find the bioassay report for Sugar Creek permit IL0021971 plant discharges for MAY 2007. The tests were completed in accordance with permit special conditions. The results show no toxicity for plant effluent sample. This is the last sample in the series.

6/8/2007

If there are any questions about this report please contact Jeff Slead at the (217) 528-0491

Sincerely,

Jeff W. Slead Operations Supervisor

BIOASSAY REPORT

ACUTE TOXICITY TESTS

Conducted May 16 through 20, 2007

Prepared for
Springfield Metro Sanitary District
Sugar Creek Wastewater Treatment Plant
Springfield, Illinois

Prepared by

S-F ANALYTICAL LABORATORIES
Bioassay Laboratory
6125 West National Avenue
Milwaukee, WI 53214

Lab I.D. No. 070538

June 2007

Summary

S-F Analytical Laboratories conducted acute toxicity tests on an effluent sample provided by Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays were conducted from May 16 through 20, 2007, as part of NPDES compliance monitoring for the State of Illinois. *Ceriodaphnia dubia* and fathead minnows were used as the test organisms. The following is a summary of the test results:

	Acute Toxicity/Survival		
Test Media	Ceriodaphnia dubia	Fathead Minnow	
Laboratory Control	Pass	Pass	
Sugar Creek Control	Pass	Pass	
100% Effluent	Pass	Pass	
LC ₅₀	>100%	>100%	

For NPDES compliance purposes, the results of the tests show that:

- The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Introduction

This report presents the results of the laboratory acute toxicity tests conducted by S-F Analytical Laboratories on an effluent sample provided by Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays used *Ceriodaphnia dubia* and fathead minnows as the test organisms and were performed from May 16 through 20, 2007, as part of NPDES compliance biomonitoring for the State of Illinois.

Methods

All laboratory methods, including organism culture, sample handling, test procedures, and data analyses, were in accordance with the recommendations of the U.S. Environmental Protection Agency (EPA) [1], the S-F Analytical Bioassay Laboratory Standard Operating Procedures, and the Illinois Environmental Protection Agency (IEPA) biomonitoring requirements as specified in the Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant NPDES permit.

Sample Collection and Handling

A photocopy of the chain-of-custody form is included in Appendix B. One 24-hour composite effluent sample and one receiving water grab sample were used as follows:

Description	Sample No.	Date Collected	Date Tested
Sugar Creek	070538.01	5/15/07	5/16-20/07
Effluent	070538.02	5/14-15/07	5/16-20/07

The samples were collected by Springfield Metro Sanitary District personnel and were shipped on ice to the S-F Analytical Bioassay Laboratory. Upon arrival, samples were logged in, physicochemical characterizations were conducted, and they were prepared for testing. Unused portions were refrigerated (4°C) for later use.

Test Organisms

All test organisms were cultured at the S-F Analytical Bioassay Laboratory.

Test Procedures

Bioassays

Bioassay test conditions are summarized in Tables 1 and 2.

Physicochemical Monitoring

Total alkalinity, hardness, and total ammonia were measured initially on each sample. Total residual chlorine was measured initially on the effluent sample. Total alkalinity and hardness were measured once in the laboratory control.

Dissolved oxygen (DO), pH, and conductivity were measured initially and thereafter in all test solution renewals. DO and pH were measured in one test chamber or composite of each test solution after 48 and 96 hours.

Bioassay incubator temperature was electronically monitored hourly by thermocouple and data logger and a 24-hour summary of mean values was recorded.

Data Analysis

Pass/Fail criteria were applied to acute toxicity data. When appropriate an LC₅₀ (median lethal concentration) was calculated using a computer program.

Acute toxicity was defined according to the following IEPA criteria:

• Less than 50 percent survival of test organisms in 100 percent effluent at test termination (48 hours for *Ceriodaphnia dubia*; 96 hours for fathead minnows). That is, the LC₅₀ less than 100 percent for either species.

Quality Assurance

Part of the quality assurance and quality control (QA/QC) program at the S-F Analytical Bioassay Laboratory includes the performance of organisms concurrently tested in laboratory media. Tables 1 and 2 present the test acceptability criteria for laboratory control data. The results of the laboratory control tests are listed in Table 3.

In addition, other QA/QC procedures include performing monthly reference toxicant tests using reagent-grade sodium chloride. The results of reference toxicant tests conducted during the past 20 months on the appropriate test organisms are summarized in Appendix C.

Summary of Test Conditions for the Ceriodaphnia Acute Bioassay Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois May 16 through 18, 2007

1.	Test organism	Ceriodaphnia dubia (Crustacea: Cladocera)
2.	Test type	Static nonrenewal
3.	Age of test organisms	Less than 24 hours
4.	Test chamber size	30 mL
5.	Test solution volume	25 mL
6.	Renewal of test solutions	None
7.	Number of replicate chambers per solution	4
8.	Number of test organisms per chamber	5
9.	Primary control/dilution water	Receiving water; Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
11.	Effluent concentrations	6.25, 12.5, 25, 50, and 100 %
12.	Temperature	20 ± 1°C
13.	Feeding regime	None
14.	Aeration	None
15.	Test duration	48 hours
16.	Sampling scheme	One 24-hour composite effluent sample and one receiving water grab sample. Maximum holding time of 36 hours between completion of collection and initial use for each sample. Laboratory water used was prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC ₅₀
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control.

Summary of Test Conditions for the Fathead Minnow Acute Bioassay

Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant

Springfield, Illinois May 16 through 20, 2007

	-	•
1.	Test organism	Pimephales promelas (Osteichthyes: Cyprinidae)
2.	Test type	Static renewal
3.	Age of test organisms	II days old
4.	Test chamber size	500 mL
5.	Test solution volume	250 mL
6.	Renewal of test solutions	. At 48 hours
7.	Number of replicate chambers per solution	2.
8.	Number of test organisms per chamber	10
9.	Primary control/dilution water	Receiving water; Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
11.	Effluent concentrations	6.25, 12.5, 25, 50, and 100 %
12.	Temperature	20 ± 1°C
13.	Feeding regime	0.15 mL live brine shrimp per container at 48 hours, prior to solution renewal.
14.	Aeration	None, unless DO concentration falls below 40% saturation (them, continuous at a rate not exceeding 100 bubbles per minute)
15.	Test duration	96 hours
16.	Sampling scheme	One 24-hour composite effluent sample and one grab sample of receiving water. Maximum holding time of 36 hours between collection and initial test use for each sample. Laboratory water prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC _{so}
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control

Results

Photocopies of laboratory data and computer printouts of the statistical analyses are found in Appendix A. There were no excursions from the protocols and all test conditions were within the limits required by the EPA. The results of the tests are summarized below.

Acute Bioassays

Table 3 presents the results of the acute bioassays. The effluent sample was not acutely toxic to Ceriodaphnia dubia at the 100 percent concentration using the 50 percent lethality criteria. The LC_{50} analysis was not conducted, but the value would be greater than 100 percent.

No acute toxicity was demonstrated to fathead minnows in the 100 percent effluent concentration. The LC_{50} analysis was not conducted, but the value would be greater than 100 percent.

Laboratory control and receiving water data were acceptable in both tests.

Table 3 Summary of Results of Acute Bioassays Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois May 16 through 20, 2007

Mean Percent Survival

Test Media	Ceriodaphnia dubia	Fathead Minnow
Laboratory Control	100	100
Sugar Creek Control	100	100
6.25%Effluent	100	100
12.5% Effluent	100	100
25% Effluent	100	100
50% Effluent	100	100
100% Effluent	100	100
LC ₅₀	>100%	>100%

Physicochemical Data

All physicochemical parameters measured satisfied the bioassay requirements (see Appendix A).

Conclusions

The results of the laboratory bioassays conducted on the effluent sample collected by Springfield Metro Sanitary District personnel on May 15, 2007 for NPDES biomonitoring, show the following:

- The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Reference

1. Weber, C.I. (ed.). 1993. Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (Fourth Edition). EPA/600/4-90/027F. U.S. EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio. 293 p.

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Illinois Association of Wastewater Agencies -

Attached please find the bioassay report for Sugar Creek permit IL0021971 plant discharges for JUNE 2007. The tests were completed in accordance with permit special conditions. The results show no toxicity for plant effluent sample.

If there are any questions about this report please contact Jeff Slead at the (217) 528-0491

Sincerely,

Jeff W. Slead Operations Supervisor

BIOASSAY REPORT

ACUTE TOXICITY TESTS

Conducted June 13 through 17, 2007

Prepared for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois

Prepared by

S-F ANALYTICAL LABORATORIES
Bioassay Laboratory
6125 West National Avenue
Milwaukee, WI 53214

Lab I.D. No. 070628

July 2007

Summary

S-F Analytical Laboratories conducted acute toxicity tests on an effluent sample provided by Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays were conducted from June 13 through 17, 2007, as part of NPDES compliance monitoring for the State of Illinois. *Ceriodaphnia dubia* and fathead minnows were used as the test organisms. The following is a summary of the test results:

•	Acute Toxicity/Survival		
Test Media	Ceriodaphnia dubia	Fathead Minnow	
Laboratory Control	Pass	Pass	
Sugar Creek Control	Pass	Pass	
100% Effluent	Pass	Pass	
LC ₅₀	>100%	>100%	

For NPDES compliance purposes, the results of the tests show that:

- The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Introduction

This report presents the results of the laboratory acute toxicity tests conducted by S-F Analytical Laboratories on an effluent sample provided by Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays used Ceriodaphnia dubia and fathead minnows as the test organisms and were performed from June 13 through 17, 2007, as part of NPDES compliance biomonitoring for the State of Illinois.

Methods

All laboratory methods, including organism culture, sample handling, test procedures, and data analyses, were in accordance with the recommendations of the U.S. Environmental Protection Agency (EPA) [1], the S-F Analytical Bioassay Laboratory Standard Operating Procedures, and the Illinois Environmental Protection Agency (IEPA) biomonitoring requirements as specified in the Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant NPDES permit.

Sample Collection and Handling

A photocopy of the chain-of-custody form is included in Appendix B. One 24-hour composite effluent sample and one receiving water grab sample were used as follows:

Description	Sample No.	Date Collected	Date Tested
Sugar Creek	070628.01	6/112/07	6/13-17/07
Effluent	070628.02	6/11-12/07	6/13-17/07

The samples were collected by Springfield Metro Sanitary District personnel and were shipped on ice to the S-F Analytical Bioassay Laboratory. Upon arrival, samples were logged in, physicochemical characterizations were conducted, and they were prepared for testing. Unused portions were refrigerated (4°C) for later use.

Test Organisms

All test organisms were cultured at the S-F Analytical Bioassay Laboratory.

Test Procedures

Bioassays

Bioassay test conditions are summarized in Tables 1 and 2.

Physicochemical Monitoring

Total alkalinity, hardness, and total ammonia were measured initially on each sample. Total residual chlorine was measured initially on the effluent sample. Total alkalinity and hardness were measured once in the laboratory control.

Dissolved oxygen (DO), pH, and conductivity were measured initially and thereafter in all test solution renewals. DO and pH were measured in one test chamber or composite of each test solution after 48 and 96 hours.

Bioassay incubator temperature was electronically monitored hourly by thermocouple and data logger and a 24-hour summary of mean values was recorded.

Data Analysis

Pass/Fail criteria were applied to acute toxicity data. When appropriate an LC₅₀ (median lethal concentration) was calculated using a computer program.

Acute toxicity was defined according to the following IEPA criteria:

• Less than 50 percent survival of test organisms in 100 percent effluent at test termination (48 hours for *Ceriodaphnia dubia*; 96 hours for fathead minnows). That is, the LC₅₀ less than 100 percent for either species.

Quality Assurance

Part of the quality assurance and quality control (QA/QC) program at the S-F Analytical Bioassay Laboratory includes the performance of organisms concurrently tested in laboratory media. Tables 1 and 2 present the test acceptability criteria for laboratory control data. The results of the laboratory control tests are listed in Table 3.

In addition, other QA/QC procedures include performing monthly reference toxicant tests using reagent-grade sodium chloride. The results of reference toxicant tests conducted during the past 20 months on the appropriate test organisms are summarized in Appendix C.

Summary of Test Conditions for the Ceriodaphnia Acute Bioassay Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois June 13 through 15, 2007

1.	Test organism	Ceriodaphnia dubia (Crustacea: Cladocera)
2.	Test type	Static nonrenewal
3.	Age of test organisms	Less than 24 hours
4.	Test chamber size	30 mL
5.	Test solution volume	25 mL
6.	Renewal of test solutions	None
7.	Number of replicate chambers per solution	4
8.	Number of test organisms per chamber	5
9.	Primary control/dilution water	Receiving water; Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
11.	Effluent concentrations	6.25, 12.5, 25, 50, and 100 %
12.	Temperature	20 ± 1°C
13.	Feeding regime	None
14.	Aeration	None
15.	Test duration	48 hours
16.	Sampling scheme	One 24-hour composite effluent sample and one receiving water grab sample. Maximum holding time of 36 hours between completion of collection and initial use for each sample. Laboratory water used was prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC ₅₀
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control.

Summary of Test Conditions for the Fathead Minnow Acute Bioassay

Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant

Springfield, Illinois June 13 through 17, 2007

1.	Test organism	Pimephales promelas (Osteichthyes: Cyprinidae)
2.	Test type	Static renewal
3.	Age of test organisms	11 days old
4.	Test chamber size	500 mL
5.	Test solution volume	250 mL
6.	Renewal of test solutions	At 48 hours
7.	Number of replicate chambers per solution	2
8.	Number of test organisms per chamber	10
9.	Primary control/dilution water	Receiving water; Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
11.	Effluent concentrations	6.25, 12.5, 25, 50, and 100 %
12.	Temperature	20 ± 1°C
13.	Feeding regime	0.15 mL live brine shrimp per container at 48 hours, prior to solution renewal.
14.	Aeration .	None, unless DO concentration falls below 40% saturation (them, continuous at a rate not exceeding 100 bubbles per minute)
15.	Test duration	96 hours
16.	Sampling scheme	One 24-hour composite effluent sample and one grab sample of receiving water. Maximum holding time of 36 hours between collection and initial test use for each sample. Laboratory water prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC ₅₀
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control

Results

Photocopies of laboratory data and computer printouts of the statistical analyses are found in Appendix A. There were no excursions from the protocols and all test conditions were within the limits required by the EPA. The results of the tests are summarized below.

Acute Bioassays

Table 3 presents the results of the acute bioassays. The effluent sample was not acutely toxic to $Ceriodaphnia\ dubia$ at the 100 percent concentration using the 50 percent lethality criteria. The LC_{50} analysis was not conducted, but the value would be greater than 100 percent.

No acute toxicity was demonstrated to fathead minnows in the 100 percent effluent concentration. The LC₅₀ analysis was not conducted, but the value would be greater than 100 percent.

Laboratory control and receiving water data were acceptable in both tests.

Table 3

Summary of Results of Acute Bioassays
Conducted for Springfield Metro Sanitary District
Sugar Creek Wastewater Treatment Plant
Springfield, Illinois
June 13 through 17, 2007

Mean Percent Survival

Test Media	Ceriodaphnia dubia	Fathead Minnow
Laboratory Control	100	100
Sugar Creek Control	100	100
6.25%Effluent	100	100
12.5% Effluent	100	100
25% Effluent	100	100
50% Effluent	001	100
100% Effluent	100	100
LC_{so}	>100%	>100%

Physicochemical Data

All physicochemical parameters measured satisfied the bioassay requirements (see Appendix A).

Conclusions

The results of the laboratory bioassays conducted on the effluent sample collected by Springfield Metro Sanitary District personnel on June 12, 2007 for NPDES biomonitoring, show the following:

- The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Reference

1. Weber, C.I. (ed.). 1993. Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (Fourth Edition). EPA/600/4-90/027F. U.S. EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio. 293 p.

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Division of Water Pollution Control 1021 North Grand Avenue East

Post Office Box 19276 Springfield, IL 62794-9276

Attention: Compliance Assurance Section, Mail Code #19

Attached please find the bioassay report for Sugar Creek permit IL0021971 plant discharges for JULY 2007. The tests were completed in accordance with permit special conditions. The results show no toxicity for plant effluent sample.

7/31/2007

If there are any questions about this report please contact Jeff Slead at the (217) 528-0491

Sincerely,

Jeff W. Slead Operations Supervisor

BIOASSAY REPORT

ACUTE TOXICITY TESTS

Conducted July 11 through 15, 2007

Prepared for
Springfield Metro Sanitary District
Sugar Creek Wastewater Treatment Plant
Springfield, Illinois

Prepared by

S-F ANALYTICAL LABORATORIES
Bioassay Laboratory
6125 West National Avenue
Milwaukee, WI 53214

Lab I.D. No. 070715

July 2007

Summary

S-F Analytical Laboratories conducted acute toxicity tests on an effluent sample provided by Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays were conducted from July 11 through 15, 2007, as part of NPDES compliance monitoring for the State of Illinois. *Ceriodaphnia dubia* and fathead minnows were used as the test organisms. The following is a summary of the test results:

•	Acute Toxicity/Survival		
Test Media	Ceriodaphnia dubia	Fathead Minnow	
Laboratory Control	Pass	Pass	
Sugar Creek Control	Pass	Pass	
100% Effluent	Pass	Pass	
LC ₅₀	>100%	>100%	

For NPDES compliance purposes, the results of the tests show that:

- The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Introduction

This report presents the results of the laboratory acute toxicity tests conducted by S-F Analytical Laboratories on an effluent sample provided by Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays used Ceriodaphnia dubia and fathead minnows as the test organisms and were performed from July 11 through 15, 2007, as part of NPDES compliance biomonitoring for the State of Illinois.

Methods

All laboratory methods, including organism culture, sample handling, test procedures, and data analyses, were in accordance with the recommendations of the U.S. Environmental Protection Agency (EPA) [1], the S-F Analytical Bioassay Laboratory Standard Operating Procedures, and the Illinois Environmental Protection Agency (IEPA) biomonitoring requirements as specified in the Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant NPDES permit.

Sample Collection and Handling

A photocopy of the chain-of-custody form is included in Appendix B. One 24-hour composite effluent sample and one receiving water grab sample were used as follows:

Description	Sample No.	Date Collected	Date Tested
Sugar Creek	070715.01	7/10/07	7/11-15/07
Effluent	070715.02	7/9-10/07	7/11-15/07

The samples were collected by Springfield Metro Sanitary District personnel and were shipped on ice to the S-F Analytical Bioassay Laboratory. Upon arrival, samples were logged in, physicochemical characterizations were conducted, and they were prepared for testing. Unused portions were refrigerated (4°C) for later use.

Test Organisms

All test organisms were cultured at the S-F Analytical Bioassay Laboratory.

Test Procedures

Bioassays

Bioassay test conditions are summarized in Tables 1 and 2.

Physicochemical Monitoring

Total alkalinity, hardness, and total ammonia were measured initially on each sample. Total residual chlorine was measured initially on the effluent sample. Total alkalinity and hardness were measured once in the laboratory control.

Dissolved oxygen (DO), pH, and conductivity were measured initially and thereafter in all test solution renewals. DO and pH were measured in one test chamber or composite of each test solution after 48 and 96 hours.

Bioassay incubator temperature was electronically monitored hourly by thermocouple and data logger and a 24-hour summary of mean values was recorded.

Data Analysis

Pass/Fail criteria were applied to acute toxicity data. When appropriate an LC₅₀ (median lethal concentration) was calculated using a computer program.

Acute toxicity was defined according to the following IEPA criteria:

• Less than 50 percent survival of test organisms in 100 percent effluent at test termination (48 hours for *Ceriodaphnia dubia*; 96 hours for fathead minnows). That is, the LC₅₀ less than 100 percent for either species.

Quality Assurance

Part of the quality assurance and quality control (QA/QC) program at the S-F Analytical Bioassay Laboratory includes the performance of organisms concurrently tested in laboratory media. Tables 1 and 2 present the test acceptability criteria for laboratory control data. The results of the laboratory control tests are listed in Table 3.

In addition, other QA/QC procedures include performing monthly reference toxicant tests using reagent-grade sodium chloride. The results of reference toxicant tests conducted during the past 20 months on the appropriate test organisms are summarized in Appendix C.

Summary of Test Conditions for the Ceriodaphnia Acute Bioassay Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois July 11 through 13, 2007

1.	Test organism	Ceriodaphnia dubia (Crustacea: Cladocera)
2.	Test type	Static nonrenewal
3,	Age of test organisms	Less than 24 hours
4.	Test chamber size	30 mL
5.	Test solution volume	25 mL
6.	Renewal of test solutions	None
7.	Number of replicate chambers per solution	4
8.	Number of test organisms per chamber	5
9.	Primary control/dilution water	Receiving water; Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
11.	Effluent concentrations	6.25, 12.5, 25, 50, and 100 %
12.	Temperature	20 ± 1°C
13.	Feeding regime	None
14.	Aeration	None
15.	Test duration	48 hours
16.	Sampling scheme	One 24-hour composite effluent sample and one receiving water grab sample. Maximum holding time of 36 hours between completion of collection and initial use for each sample. Laboratory water used was prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC ₅₀
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control.

Table 2 Summary of Test Conditions for the Fathead Minnow Acute Bioassay Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois July 11 through 15, 2007

1.	Test organism	Pimephales promelas (Osteichthyes: Cyprinidae)
2.	Test type	Static renewal
3.	Age of test organisms	14 days old
4.	Test chamber size	500 mL
5.	Test solution volume	250 mL
6.	Renewal of test solutions	At 48 hours
7	Number of replicate chambers per solution	2
8.	Number of test organisms per chamber	10
9.	Primary control/dilution water	Receiving water; Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
11.	Effluent concentrations	6.25, 12.5, 25, 50, and 100 %
12.	Temperature	20 ± 1°C
13.	Feeding regime	0.15 mL live brine shrimp per container at 48 hours, prior to solution renewal.
14.	Aeration .	None, unless DO concentration falls below 40% saturation (them, continuous at a rate not exceeding 100 bubbles per minute)
15.	Test duration	96 hours
16.	Sampling scheme	One 24-hour composite effluent sample and one grab sample of receiving water. Maximum holding time of 36 hours between collection and initial test use for each sample. Laboratory water prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC ₅₀
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control

Results

Photocopies of laboratory data and computer printouts of the statistical analyses are found in Appendix A. There were no excursions from the protocols and all test conditions were within the limits required by the EPA. The results of the tests are summarized below.

Acute Bioassays

Table 3 presents the results of the acute bioassays. The effluent sample was not acutely toxic to Ceriodaphnia dubia at the 100 percent concentration using the 50 percent lethality criteria. The LC_{50} analysis was not conducted, but the value would be greater than 100 percent.

No acute toxicity was demonstrated to fathead minnows in the 100 percent effluent concentration. The LC_{50} analysis was not conducted, but the value would be greater than 100 percent.

Laboratory control and receiving water data were acceptable in both tests.

Table 3 Summary of Results of Acute Bioassays Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois July 11 through 15, 2007

Mean Percent Survival

Test Media	Ceriodaphnia dubia	Fathead Minnow
Laboratory Control	100	100
Sugar Creek Control	100	100
6.25%Effluent	100	100
12.5% Effluent	100	100
25% Effluent	100	100
50% Effluent	100	100
100% Effluent	100	100
LC ₅₀	>100%	>100%

Physicochemical Data

All physicochemical parameters measured satisfied the bioassay requirements (see Appendix A).

Conclusions

The results of the laboratory bioassays conducted on the effluent sample collected by Springfield Metro Sanitary District personnel on July 10, 2007 for NPDES biomonitoring, show the following:

- The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Reference

1. Weber, C.I. (ed.). 1993. Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (Fourth Edition). EPA/600/4-90/027F. U.S. EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio. 293 p.

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Post Office Box 19276 Springfield, IL 62794-9276

Attention: Compliance Assurance Section, Mail Code #19

Attached please find the bioassay report for Sugar Creek permit IL0021971 plant discharges for AUGUST 2007. The tests were completed in accordance with permit special conditions. The results show no toxicity for plant effluent sample.

9/6/2007

If there are any questions about this report please contact Jeff Slead at the (217) 528-0491

Sincerely,

Jeff W. Slead Operations Supervisor

BIOASSAY REPORT

ACUTE TOXICITY TESTS

Conducted August 8 through 12, 2007

Prepared for
Springfield Metro Sanitary District
Sugar Creek Wastewater Treatment Plant
Springfield, Illinois

Prepared by

S-F ANALYTICAL LABORATORIES
Bioassay Laboratory
6125 West National Avenue
Milwaukee, WI 53214

Lab I.D. No. 070823

August 2007

Summary

S-F Analytical Laboratories conducted acute toxicity tests on an effluent sample provided by Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays were conducted from August 8 through 12, 2007, as part of NPDES compliance monitoring for the State of Illinois. *Certodaphnia dubia* and fathead minnows were used as the test organisms. The following is a summary of the test results:

Acute Toxicity/Survival		
Ceriodaphnia dubia	Fathead Minnow	
Pass	Pass	
Pass	Pass	
Pass	Pass	
>100%	>100%	
	Ceriodaphnia dubia Pass Pass Pass	

For NPDES compliance purposes, the results of the tests show that:

- The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Introduction

This report presents the results of the laboratory acute toxicity tests conducted by S-F Analytical Laboratories on an effluent sample provided by Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays used Ceriodaphnia dubia and fathead minnows as the test organisms and were performed from August 8 through 12, 2007, as part of NPDES compliance biomonitoring for the State of Illinois.

Methods

All laboratory methods, including organism culture, sample handling, test procedures, and data analyses, were in accordance with the recommendations of the U.S. Environmental Protection Agency (EPA) [1], the S-F Analytical Bioassay Laboratory Standard Operating Procedures, and the Illinois Environmental Protection Agency (IEPA) biomonitoring requirements as specified in the Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant NPDES permit.

Sample Collection and Handling

A photocopy of the chain-of-custody form is included in Appendix B. One 24-hour composite effluent sample and one receiving water grab sample were used as follows:

Description	Sample No.	Date Collected	Date Tested
Sugar Creek	070823.01	8/7/07	8/8-12/07
Effluent	070823.02	8/6-7/07	8/8-12/07

The samples were collected by Springfield Metro Sanitary District personnel and were shipped on ice to the S-F Analytical Bioassay Laboratory. Upon arrival, samples were logged in, physicochemical characterizations were conducted, and they were prepared for testing. Unused portions were refrigerated (4°C) for later use.

Test Organisms

All test organisms were cultured at the S-F Analytical Bioassay Laboratory.

Test Procedures

Bioassays

Bioassay test conditions are summarized in Tables 1 and 2.

Physicochemical Monitoring

Total alkalinity, hardness, and total ammonia were measured initially on each sample. Total residual chlorine was measured initially on the effluent sample. Total alkalinity and hardness were measured once in the laboratory control.

Dissolved oxygen (DO), pH, and conductivity were measured initially and thereafter in all test solution renewals. DO and pH were measured in one test chamber or composite of each test solution after 48 and 96 hours.

Bioassay incubator temperature was electronically monitored hourly by thermocouple and data logger and a 24-hour summary of mean values was recorded.

Data Analysis

Pass/Fail criteria were applied to acute toxicity data. When appropriate an LC₅₀ (median lethal concentration) was calculated using a computer program.

Acute toxicity was defined according to the following IEPA criteria:

Less than 50 percent survival of test organisms in 100 percent effluent at test termination (48 hours for *Ceriodaphnia dubia*; 96 hours for fathead minnows). That is, the LC₅₀ less than 100 percent for either species.

Quality Assurance

Part of the quality assurance and quality control (QA/QC) program at the S-F Analytical Bioassay Laboratory includes the performance of organisms concurrently tested in laboratory media. Tables 1 and 2 present the test acceptability criteria for laboratory control data. The results of the laboratory control tests are listed in Table 3.

In addition, other QA/QC procedures include performing monthly reference toxicant tests using reagent-grade sodium chloride. The results of reference toxicant tests conducted during the past 20 months on the appropriate test organisms are summarized in Appendix C.

Table 1

Table 1 Summary of Test Conditions for the Ceriodaphnia Acute Bioassay Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois August 8 through 10, 2007

1.	Test organism	Ceriodaphnia dubia (Crustacea: Cladocera)
2.	Test type	Static nonrenewal
3.	Age of test organisms	Less than 24 hours
4.	Test chamber size	30 mL
5.	Test solution volume	25 mL
6.	Renewal of test solutions	None
7. .	Number of replicate chambers per solution	4
8.	Number of test organisms per chamber	5
9.	Primary control/dilution water	Receiving water; Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
11.	Effluent concentrations	6.25, 12.5, 25, 50, and 100 %
12.	Temperature	20 ± 1°€
13.	Feeding regime	None
14.	Aeration	None .
15.	Test duration	48 hours
16.	Sampling scheme	One 24-hour composite effluent sample and one receiving water grab sample. Maximum holding time of 36 hours between completion of collection and initial use for each sample. Laboratory water used was prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC ₅₀
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control.

Table 2

Summary of Test Conditions for the Fathead Minnow Acute Bioassay

Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant

Springfield, Illinois August 8 through 12, 2007

•		
1.	Test organism	Pimephales promelas (Osteichthyes: Cyprinidae)
2.	Test type	Static renewal
3.	Age of test organisms	13 days old
4.	Test chamber size	500 mL
5.	Test solution volume	. 250 mL
6.	Renewal of test solutions	At 48 hours
7.	Number of replicate chambers per solution	2
8.	Number of test organisms per chamber	10
9.	Primary control/dilution water	Receiving water; Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
11.	Effluent concentrations	6.25, 12.5, 25, 50, and 100 %
12.	Temperature	20 ± 1°C
13.	Feeding regime	0.15 mL live brine shrimp per container at 48 hours, prior to solution renewal.
14.	Aeration	None, unless DO concentration falls below 40% saturation (them, continuous at a rate not exceeding 100 bubbles per minute)
15.	Test duration	96 hours
16.	Sampling scheme	One 24-hour composite effluent sample and one grab sample of receiving water. Maximum holding time of 36 hours between collection and initial test use for each sample. Laboratory water prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC ₅₀
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control

Results

Photocopies of laboratory data and computer printouts of the statistical analyses are found in Appendix A. There were no excursions from the protocols and all test conditions were within the limits required by the EPA. The results of the tests are summarized below.

Acute Bioassays

Table 3 presents the results of the acute bioassays. The effluent sample was not acutely toxic to Ceriodaphnia dubia at the 100 percent concentration using the 50 percent lethality criteria. The LC_{50} analysis was not conducted, but the value would be greater than 100 percent.

No acute toxicity was demonstrated to fathead minnows in the 100 percent effluent concentration. The LC₅₀ analysis was not conducted, but the value would be greater than 100 percent.

Laboratory control and receiving water data were acceptable in both tests.

Table 3 Summary of Results of Acute Bioassays Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois August 8 through 12, 2007

Mean Percent Survival

Test Media	Ceriodaphnia dubia	Fathead Minnow
Laboratory Control	100	100
Sugar Creek Control	100	100
6.25%Effluent	100	100
12.5% Effluent	100	100
25% Effluent	100	100
50% Effluent	100	100
100% Effluent	100	100
LC ₅₀	>100%	>100%

Physicochemical Data

All physicochemical parameters measured satisfied the bioassay requirements (see Appendix A).

Conclusions

The results of the laboratory bioassays conducted on the effluent sample collected by Springfield Metro Sanitary District personnel on August 7, 2007 for NPDES biomonitoring, show the following:

- The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Reference

1. Weber, C.I. (ed.). 1993. Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (Fourth Edition). EPA/600/4-90/027F. U.S. EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio. 293 p.

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Springfield, IL 62794-9276

Attention: Compliance Assurance Section, Mail Code #19

Attached please find the bioassay report for Sugar Creek permit IL0021971 plant discharges for SEPTEMBER 2007. The tests were completed in accordance with permit special conditions. The results show no toxicity for plant effluent sample. This is the last in the series.

10/10/2007

If there are any questions about this report please contact Jeff Slead at the (217) 528-0491

Sincerely,

Jeff W. Slead Operations Supervisor

W. Shoot

BIOASSAY REPORT

ACUTE TOXICITY TESTS

Conducted September 12 through 16, 2007

Prepared for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois

Prepared by

S-F ANALYTICAL LABORATORIES
Bioassay Laboratory
6125 West National Avenue
Milwaukee, WI 53214

Lab I.D. No. 070927

October 2007

Summary

S-F Analytical Laboratories conducted acute toxicity tests on an effluent sample provided by Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays were conducted from September 12 through 16, 2007, as part of NPDES compliance monitoring for the State of Illinois. *Ceriodaphnia dubia* and fathead minnows were used as the test organisms. The following is a summary of the test results:

	Acute Toxicity/Survival		
Test Media	Ceriodaphnia dubia	Fathead Minnow	
Laboratory Control	Pass	Pass	
Sugar Creek Control	Pass	Pass	
100% Effluent	Pass	Pass-	
LC ₅₀	>100%	>100%	

For NPDES compliance purposes, the results of the tests show that:

- The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Introduction

This report presents the results of the laboratory acute toxicity tests conducted by S-F Analytical Laboratories on an effluent sample provided by Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays used *Ceriodaphnia dubia* and fathead minnows as the test organisms and were performed from September 12 through 16, 2007, as part of NPDES compliance biomonitoring for the State of Illinois.

Methods

All laboratory methods, including organism culture, sample handling, test procedures, and data analyses, were in accordance with the recommendations of the U.S. Environmental Protection Agency (EPA) [1], the S-F Analytical Bioassay Laboratory Standard Operating Procedures, and the Illinois Environmental Protection Agency (IEPA) biomonitoring requirements as specified in the Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant NPDES permit.

Sample Collection and Handling

A photocopy of the chain-of-custody form is included in Appendix B. One 24-hour composite effluent sample and one receiving water grab sample were used as follows:

Description	Sample No.	Date Collected	Date Tested
Sugar Creek	070927.01	9/11/07	9/12-16/07
Effluent	070927.02	9/10-11/07	9/12-16/07

The samples were collected by Springfield Metro Sanitary District personnel and were shipped on ice to the S-F Analytical Bioassay Laboratory. Upon arrival, samples were logged in, physicochemical characterizations were conducted, and they were prepared for testing. Unused portions were refrigerated (4°C) for later use.

Test Organisms

All test organisms were cultured at the S-F Analytical Bioassay Laboratory.

Test Procedures

Bioassays

Bioassay test conditions are summarized in Tables 1 and 2.

Physicochemical Monitoring

Total alkalinity, hardness, and total ammonia were measured initially on each sample. Total residual chlorine was measured initially on the effluent sample. Total alkalinity and hardness were measured once in the laboratory control.

Dissolved oxygen (DO), pH, and conductivity were measured initially and thereafter in all test solution renewals. DO and pH were measured in one test chamber or composite of each test solution after 48 and 96 hours.

Bioassay incubator temperature was electronically monitored hourly by thermocouple and data logger and a 24-hour summary of mean values was recorded.

Data Analysis

Pass/Fail criteria were applied to acute toxicity data. When appropriate an LC₅₀ (median lethal concentration) was calculated using a computer program.

Acute toxicity was defined according to the following IEPA criteria:

• Less than 50 percent survival of test organisms in 100 percent effluent at test termination (48 hours for *Ceriodaphnia dubia*; 96 hours for fathead minnows). That is, the LC₅₀ less than 100 percent for either species.

Quality Assurance

Part of the quality assurance and quality control (QA/QC) program at the S-F Analytical Bioassay Laboratory includes the performance of organisms concurrently tested in laboratory media. Tables I and 2 present the test acceptability criteria for laboratory control data. The results of the laboratory control tests are listed in Table 3.

In addition, other QA/QC procedures include performing monthly reference toxicant tests using reagent-grade sodium chloride. The results of reference toxicant tests conducted during the past 20 months on the appropriate test organisms are summarized in Appendix C.

Table 1

Summary of Test Conditions for the

Ceriodaphnia Acute Bioassay Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant

Springfield, Illinois September 12 through 14, 2007

1.	Test organism .	Ceriodaphnia dubia (Crustacea: Cladocera)
2.	Test type	Static nonrenewal
3.	Age of test organisms	Less than 24 hours
4.	Test chamber size	30 mL
5.	Test solution volume	25 mL
6.	Renewal of test solutions	None
7.	Number of replicate chambers per solution	4
8.	Number of test organisms per chamber	5
9.	Primary control/dilution water	Receiving water; Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
ļ1.	Effluent concentrations	6.25, 12.5, 25, 50, and 100 %
12.	Temperature	20 ± 1°C
13.	Feeding regime	None
14.	Aeration	None
15.	Test duration	48 hours
16.	Sampling scheme	One 24-hour composite effluent sample and one receiving water grab sample. Maximum holding time of 36 hours between completion of collection and initial use for each sample. Laboratory water used was prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC ₅₀
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control.

Table 2

Summary of Test Conditions for the Fathead Minnow Acute Bioassay Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois

September 12 through 16, 2007

1.	Test organişm	Pimephales promelas (Osteichthyes: Cyprinidae)
2.	Test type	Static renewal
3.	Age of test organisms	7 days old
4.	Test chamber size	500 mL
5.	Test solution volume	250 mL
6.	Renewal of test solutions	At 48 hours
7.	Number of replicate chambers per solution	2
8.	Number of test organisms per chamber	10
9.	Primary control/dilution water	Receiving water; Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
11.	Effluent concentrations	6.25, 12.5, 25, 50, and 100 %
12.	Temperature	20 ± 1°C
13.	Feeding regime	0.15 mL live brine shrimp per container at 48 hours, prior to solution renewal.
14.	Aeration	None, unless DO concentration falls below 40% saturation (them, continuous at a rate not exceeding 100 bubbles per minute)
15.	Test duration	96 hours
16.	Sampling scheme	One 24-hour composite effluent sample and one grab sample of receiving water. Maximum holding time of 36 hours between collection and initial test use for each sample. Laboratory water prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC ₅₀
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control

Results

Photocopies of laboratory data and computer printouts of the statistical analyses are found in Appendix A. There were no excursions from the protocols and all test conditions were within the limits required by the EPA. The results of the tests are summarized below.

Acute Bioassays

Table 3 presents the results of the acute bioassays. The effluent sample was not acutely toxic to Ceriodaphnia dubia at the 100 percent concentration using the 50 percent lethality criteria. The LC_{50} analysis was not conducted, but the value would be greater than 100 percent.

No acute toxicity was demonstrated to fathead minnows in the 100 percent effluent concentration. The LC₅₀ analysis was not conducted, but the value would be greater than 100 percent.

Laboratory control and receiving water data were acceptable in both tests.

Table 3 Summary of Results of Acute Bioassays Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois

September 12 through 16, 2007

Mean Percent Survival

Test Media	Ceriodaphnia dubia	Fathead Minnow
Laboratory Control	100	95
Sugar Creek Control	100	100
6.25%Effluent	100	90
12.5% Effluent	100	100
25% Effluent	100	100
50% Effluent	100	100
100% Effluent	100	95
LC ₅₀	>100%	>100%

Physicochemical Data

All physicochemical parameters measured satisfied the bioassay requirements (see Appendix A).

Conclusions

The results of the laboratory bioassays conducted on the effluent sample collected by Springfield Metro Sanitary District personnel on September 11, 2007 for NPDES biomonitoring, show the following:

- The effluent sample was not acutely toxic to Ceriodaphnia dubia at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Reference

1. Weber, C.I. (ed.). 1993. Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (Fourth Edition). EPA/600/4-90/027F. U.S. EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio. 293 p.

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Division of Water Pollution Control 1021 North Grand Avenue East

Post Office Box 19276 Springfield, IL 62794-9276

Attention: Compliance Assurance Section, Mail Code #19

Attached please find the bioassay report for Spring Creek permit IL0021971 plant discharges for June 2010. The tests were completed in accordance with permit special conditions. The results show no toxicity for plant effluent sample. This is the 18th month and first sample.

6/25/2010

If there are any questions about this report please contact Jeff Slead at the (217) 528-0491

Sincerely,

Jeff W. Slead Operations Supervisor

Joffw. Shad

BIOASSAY REPORT

ACUTE TOXICITY TESTS

Conducted June 9 through 13, 2010

Prepared for
Springfield Metro Sanitary District
Sugar Creek Wastewater Treatment Plant
Springfield, Illinois

Prepared by

S-F ANALYTICAL LABORATORIES
Bioassay Laboratory
2345 South 170th Street
New Berlin, WI 53151

Lab I.D. No. TF0255

June 2010

Summary

S-F Analytical Laboratories conducted acute toxicity tests on an effluent sample provided by Springfield Metro Sanitary District - Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays were conducted from June 9 through 13, 2010, as part of NPDES compliance monitoring for the State of Illinois. *Ceriodaphnia dubia* and fathead minnows were used as the test organisms. The following is a summary of the test results:

Test Media	Acute Toxicity/Sur	vival
	Ceriodaphnia dubia	Fathead Minnow
Laboratory Control	Pass -	Pass
Sugar Creek Control	Pass	Pass
100% Effluent	Pass	Pass
LC₅o	.>100%	>100%

For NPDES compliance purposes, the results of the tests show that:

- The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Introduction

This report presents the results of the laboratory acute toxicity tests conducted by S-F Analytical Laboratories on an effluent sample provided by Springfield Metro Sanitary District - Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays used Ceriodaphnia dubia and fathead minnows as the test organisms and were performed from June 9 through 13, 2010, as part of NPDES compliance biomonitoring for the State of Illinois.

Methods

All laboratory methods, including organism culture, sample handling, test procedures, and data analyses, were in accordance with the recommendations of the U.S. Environmental Protection Agency (EPA) [1], the S-F Analytical Bioassay Laboratory Standard Operating Procedures, and the Illinois Environmental Protection Agency (IEPA) biomonitoring requirements as specified in the Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant NPDES permit.

Sample Collection and Handling

A photocopy of the chain-of-custody form is included in Appendix B. One 24-hour composite effluent sample and one receiving water grab sample were used as follows:

Description	Sample No.	Date Collected	Date Tested
Sugar Creek	TF0255.01	6/8/10	6/9-13/10
Effluent	TF0255.02	6/7-8/10	6/9-13/10

The samples were collected by Springfield Metro Sanitary District personnel and were shipped on ice to the S-F Analytical Bioassay Laboratory. Upon arrival, samples were logged in, physicochemical characterizations were conducted, and they were prepared for testing. Unused portions were refrigerated (4°C) for later use.

Test Organisms

All test organisms were cultured at the S-F Analytical Bioassay Laboratory.

Test Procedures

Bioassays

Bioassay test conditions are summarized in Tables 1 and 2.

Physicochemical Monitoring

Total alkalinity, hardness, and total ammonia were measured initially on each sample. Total residual chlorine was measured initially on the effluent sample. Total alkalinity and hardness were measured once in the laboratory control.

Dissolved oxygen (DO), pH, and conductivity were measured initially and thereafter in all test solution renewals. DO and pH were measured in one test chamber or composite of each test solution after 48 and 96 hours.

Bioassay incubator temperature was electronically monitored hourly by thermocouple and data logger and a 24-hour summary of mean values was recorded.

Data Analysis

Pass/Fail criteria were applied to acute toxicity data. When appropriate an LC₅₀ (median lethal concentration) was calculated using a computer program.

Acute toxicity was defined according to the following IEPA criteria:

• Less than 50 percent survival of test organisms in 100 percent effluent at test termination (48 hours for *Ceriodaphnia dubia*; 96 hours for fathead minnows). That is, the LC₅₀ less than 100 percent for either species.

Quality Assurance

Part of the quality assurance and quality control (QA/QC) program at the S-F Analytical Bioassay Laboratory includes the performance of organisms concurrently tested in laboratory media. Tables 1 and 2 present the test acceptability criteria for laboratory control data. The results of the laboratory control tests are listed in Table 3.

In addition, other QA/QC procedures include performing monthly reference toxicant tests using reagent-grade sodium chloride. The results of reference toxicant tests conducted during the past 20 months on the appropriate test organisms are summarized in Appendix C.

Table 1 Summary of Test Conditions for the Ceriodaphnia Acute Bioassay Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois June 9 through 11, 2010

1.	Test organism	Ceriodaphnia dubia (Crustacea: Cladocera)
2.	Test type	Static nonrenewal
3.	Age of test organisms	Less than 24 hours
4.	Test chamber size	30 mL .
5.	Test solution volume	25 mL
6.	Renewal of test solutions	None
7.	Number of replicate chambers per solution	4
8.	Number of test organisms per chamber	5
9.	Primary control/dilution water	Receiving water, Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
11.	Effluent concentrations	6.25, 12.5, 25, 50, and 100 %
12.	Temperature	20 <u>+</u> 1°C
13.	Feeding regime	None
14.	Aeration	None .
15.	Test duration	48 hours
16.	Sampling scheme	One 24-hour composite effluent sample and one receiving water grab sample. Maximum holding time of 36 hours between completion of collection and initial use for each sample. Laboratory water used was prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC ₅₀
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control.

Table 2

Summary of Test Conditions for the

Fathead Minnow Acute Bioassay Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois June 9 through 13, 2010

1.	Test organism	Pimephales promelas (Osteichthyes: Cyprinidae)
2.	Test type	Static renewal
3.	Age of test organisms	11 days old
4,	Test chamber size	500 mL
5.	Test solution volume	250 mL
6.	Renewal of test solutions	At 48 hours
7.	Number of replicate chambers per solution	2 .
. 8.	Number of test organisms per chamber	10
9.	Primary control/dilution water	Receiving water; Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
11.	Effluent concentrations	6.25, 12.5, 25, 50, and 100 %
12.	Temperature	20 ± 1°C
13.	Feeding regime	0.15 mL live brine shrimp per container at 48 hours, prior to solution renewal.
14.	Aeration	None, unless DO concentration falls below 40% saturation (them, continuous at a rate not exceeding 100 bubbles per minute)
15.	Test duration	96 hours
16.	Sampling scheme	One 24-hour composite effluent sample and one grab sample of receiving water. Maximum holding time of 36 hours between collection and initial test use for each sample. Laboratory water prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC ₅₀
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control

Results

Photocopies of laboratory data and computer printouts of the statistical analyses are found in Appendix A. There were no excursions from the protocols and all test conditions were within the limits required by the EPA. The results of the tests are summarized below.

Acute Bioassays

Table 3 presents the results of the acute bioassays. The effluent sample was not acutely toxic to $Ceriodaphnia\ dubia$ at the 100 percent concentration using the 50 percent lethality criteria. The LC_{50} analysis was not conducted, but the value would be greater than 100 percent.

No acute toxicity was demonstrated to fathead minnows in the 100 percent effluent concentration. The LC₅₀ analysis was not conducted, but the value would be greater than 100 percent.

Laboratory control and receiving water data were acceptable in both tests.

Table 3 Summary of Results of Acute Bioassays Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois

June 9 through 13, 2010

Mean Percent Survival

Test Media	Ceriodaphnia dubia	Fathead Minnow
Laboratory Control	100	100
Sugar Creek Control	100	100
6.25%Effluent	100	95
12.5% Effluent	100	100
25% Effluent	100	100
50% Effluent	100	100
100% Effluent	100	100
LC50 .	>100%	>100%

Physicochemical Data

All physicochemical parameters measured satisfied the bioassay requirements (see Appendix A).

Conclusions

The results of the laboratory bioassays conducted on the effluent sample collected by Springfield Metro Sanitary District personnel on June 8, 2010 for NPDES biomonitoring, show the following:

- The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Reference

1. U.S. EPA. 2002. Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (Fifth Edition). EPA-821-R-02-012. U.S. EPA, Environmental Protection Agency, Office of Water, Washington, DC. 266 p.

3017 North Eighth Street Springfield, Illinois 62797 217-528-0491 pt 217-528-0497 ptx



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Division of Water Pollution Control 1021 North Grand Avenue East

Illinois Environmental Protection Agency

Post Office Box 19276 Springfield, IL 62794-9276

Attention: Compliance Assurance Section, Mail Code #19

Attached please find the bioassay report for Spring Creek permit IL0021971 plant discharges for September 2010. The tests were completed in accordance with permit special conditions. The results show no toxicity for plant effluent sample. This is the 15th month and second sample.

10/8/2010

If there are any questions about this report please contact Jeff Slead at the (217) 528-0491

Sincerely,

Jeff W. Slead Operations Supervisor

BIOASSAY REPORT

ACUTE TOXICITY TESTS

Conducted September 15 through 19, 2010

Prepared for
Springfield Metro Sanitary District
Sugar Creek Wastewater Treatment Plant
Springfield, Illinois

Prepared by

S-F ANALYTICAL LABORATORIES
Bioassay Laboratory
2345 South 170th Street
New Berlin, WI 53151

Lab I.D. No. TI0463

September 2010

Summary

S-F Analytical Laboratories conducted acute toxicity tests on an effluent sample provided by Springfield Metro Sanitary District - Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays were conducted from September 15 through 19, 2010, as part of NPDES compliance monitoring for the State of Illinois. *Ceriodaphnia dubia* and fathead minnows were used as the test organisms. The following is a summary of the test results:

,	Acute Toxicity/Survival		
Test Media	ia Ceriodaphnia dubia		
Laboratory Control	Pass	Pass	
Sugar Creek Control	Pass	Pass	
100% Effluent	Pass	Pass	
LC ₅₀	>100%	>100%	

For NPDES compliance purposes, the results of the tests show that:

- The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Introduction

This report presents the results of the laboratory acute toxicity tests conducted by S-F Analytical Laboratories on an effluent sample provided by Springfield Metro Sanitary District - Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays used Ceriodaphnia dubia and fathead minnows as the test organisms and were performed from September 15 through 19, 2010, as part of NPDES compliance biomonitoring for the State of Illinois.

Methods

All laboratory methods, including organism culture, sample handling, test procedures, and data analyses, were in accordance with the recommendations of the U.S. Environmental Protection Agency (EPA) [1], the S-F Analytical Bioassay Laboratory Standard Operating Procedures, and the Illinois Environmental Protection Agency (IEPA) biomonitoring requirements as specified in the Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant NPDES permit.

Sample Collection and Handling

A photocopy of the chain-of-custody form is included in Appendix B. One 24-hour composite effluent sample and one receiving water grab sample were used as follows:

Description	Sample No.	Date Collected	Date Tested
Sugar Creek	TI0463.01	9/14/10	9/15-19/10
Effluent	TI0463.02	9/13-14/10	9/15-19/10

The samples were collected by Springfield Metro Sanitary District personnel and were shipped on ice to the S-F Analytical Bioassay Laboratory. Upon arrival, samples were logged in, physicochemical characterizations were conducted, and they were prepared for testing. Unused portions were refrigerated (4°C) for later use.

Test Organisms

All test organisms were cultured at the S-F Analytical Bioassay Laboratory.

Test Procedures

Bioassays

Bioassay test conditions are summarized in Tables 1 and 2.

Physicochemical Monitoring

Total alkalinity, hardness, and total ammonia were measured initially on each sample. Total residual chlorine was measured initially on the effluent sample. Total alkalinity and hardness were measured once in the laboratory control.

Dissolved oxygen (DO), pH, and conductivity were measured initially and thereafter in all test solution renewals. DO and pH were measured in one test chamber or composite of each test solution after 48 and 96 hours.

Bioassay incubator temperature was electronically monitored hourly by thermocouple and data logger and a 24-hour summary of mean values was recorded.

Data Analysis

Pass/Fail criteria were applied to acute toxicity data. When appropriate an LC₅₀ (median lethal concentration) was calculated using a computer program.

Acute toxicity was defined according to the following IEPA criteria:

• Less than 50 percent survival of test organisms in 100 percent effluent at test termination (48 hours for *Ceriodaphnia dubia*; 96 hours for fathead minnows). That is, the LC₅₀ less than 100 percent for either species.

Quality Assurance

Part of the quality assurance and quality control (QA/QC) program at the S-F Analytical Bioassay Laboratory includes the performance of organisms concurrently tested in laboratory media. Tables 1 and 2 present the test acceptability criteria for laboratory control data. The results of the laboratory control tests are listed in Table 3.

In addition, other QA/QC procedures include performing monthly reference toxicant tests using reagent-grade sodium chloride. The results of reference toxicant tests conducted during the past 20 months on the appropriate test organisms are summarized in Appendix C.

Table 1

Summary of Test Conditions for the Ceriodaphnia Acute Bioassay Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois

September 15 through 17, 2010

1.	Test organism	Ceriodaphnia dubia (Crustacea: Cladocera)
2.	Test type	Static nonrenewal
3.	Age of test organisms	Less than 24 hours
4.	Test chamber size	30 mL
5.	Test solution volume	25 mL
6.	Renewal of test solutions	None
7.	Number of replicate chambers per solution	. 4
8.	Number of test organisms per chamber	5
9.	Primary control/dilution water	Receiving water; Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
11.	Effluent concentrations	6.25, 12.5, 25, 50, and 100 %
12.	Temperature	20 <u>+</u> 1°C
13.	Feeding regime	None
14.	Aeration	None
15.	Test duration	48 hours
16.	Sampling scheme	One 24-hour composite effluent sample and one receiving water grab sample. Maximum holding time of 36 hours between completion of collection and initial use for each sample. Laboratory water used was prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC ₃₀
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control.

Table 2

Summary of Test Conditions for the Fathead Minnow Acute Bioassay Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois

September 15 through 19, 2010

1.	Test organism	Pimephales promelas (Osteichthyes: Cyprinidae)
2.	Test type	Static renewal
3.	Age of test organisms	13 days old
4.	Test chamber size	500 mL
5 .	Test solution volume	250 mL
6.	Renewal of test solutions	At 48 hours
7.	Number of replicate chambers per solution	2
8.	Number of test organisms per chamber	10
9.	Primary control/dilution water	Receiving water; Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
11.	Effluent concentrations	6.25, 12.5, 25, 50, and 100 %
12.	Temperature	20 ± 1°C
13.	Feeding regime	0.15 mL live brine shrimp per container at 48 hours, prior to solution renewal.
14.	Aeration	None, unless DO concentration falls below 40% saturation (them, continuous at a rate not exceeding 100 bubbles per minute)
15.	Test duration	96 hours
16.	Sampling scheme	One 24-hour composite effluent sample and one grab sample of receiving water. Maximum holding time of 36 hours between collection and initial test use for each sample. Laboratory water prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC ₅₀
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control

Results

Photocopies of laboratory data and computer printouts of the statistical analyses are found in Appendix A. There were no excursions from the protocols and all test conditions were within the limits required by the EPA. The results of the tests are summarized below.

Acute Bioassays

Table 3 presents the results of the acute bioassays. The effluent sample was not acutely toxic to Ceriodaphnia dubia at the 100 percent concentration using the 50 percent lethality criteria. The LC_{50} analysis was not conducted, but the value would be greater than 100 percent.

No acute toxicity was demonstrated to fathead minnows in the 100 percent effluent concentration. The LC₅₀ analysis was not conducted, but the value would be greater than 100 percent.

Laboratory control and receiving water data were acceptable in both tests.

Table 3 Summary of Results of Acute Bioassays Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois September 15 through 19, 2010

Mean Percent Survival

Test Media	Ceriodaphnia dubia	Fathead Minnow
Laboratory Control	100	100
Sugar Creek Control	100	100
6.25%Effluent	100	100
12.5% Effluent	100	95
25% Effluent	100	100
50% Effluent	100	100
100% Effluent	100	100
LC ₅₀	>100%	>100%

, Physicochemical Data

All physicochemical parameters measured satisfied the bioassay requirements (see Appendix A).

Conclusions

The results of the laboratory bioassays conducted on the effluent sample collected by Springfield Metro Sanitary District personnel on September 14, 2010 for NPDES biomonitoring, show the following:

- The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Reference

1. U.S. EPA. 2002. Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (Fifth Edition). EPA-821-R-02-012. U.S. EPA, Environmental Protection Agency, Office of Water, Washington, DC. 266 p.

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Illinois Association of Wastewater Agencies Illinois Environmental Protection Agency

Division of Water Pollution Control 1021 North Grand Avenue East

Post Office Box 19276

Springfield, IL 62794-9276

Attention: Compliance Assurance Section, Mail Code #19

Attached please find the bioassay report for Sugar Creek permit IL0021971 plant discharges for DECEMBER 2010. The tests were completed in accordance with permit special conditions. The results show no toxicity for plant effluent sample. This is the 12th month sample with one sample remaining.

1/5/2011

If there are any questions about this report please contact Jeff Slead at the (217) 528-0491

Sincerely,

Jeff W. Slead Operations Supervisor

BIOASSAY REPORT

ACUTE TOXICITY TESTS

Conducted December 15 through 19, 2010

Prepared for
Springfield Metro Sanitary District
Sugar Creek Wastewater Treatment Plant
Springfield, Illinois

Prepared by

S-F ANALYTICAL LABORATORIES
Bioassay Laboratory
2345 South 170th Street
New Berlin, WI 53151

Lab I.D. No. TL0444

December 2010.

Summary

S-F Analytical Laboratories conducted acute toxicity tests on an effluent sample provided by Springfield Metro Sanitary District - Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays were conducted from December 15 through 19, 2010, as part of NPDES compliance monitoring for the State of Illinois. *Ceriodaphnia dubia* and fathead minnows were used as the test organisms. The following is a summary of the test results:

	Acute Toxicity/Sur	vival
Test Media	Ceriodaphnia dubia	Fathead Minnow
Laboratory Control	Pass	Pass
Sugar Creek Control	Pass	Pass
100% Effluent	Pass	Pass
LC ₅₀	>100%	>100%

For NPDES compliance purposes, the results of the tests show that:

- The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Introduction

This report presents the results of the laboratory acute toxicity tests conducted by S-F Analytical Laboratories on an effluent sample provided by Springfield Metro Sanitary District - Sugar Creek Wastewater Treatment Plant, Springfield, Illinois. The bioassays used Ceriodaphnia dubia and fathead minnows as the test organisms and were performed from December 15 through 19, 2010, as part of NPDES compliance biomonitoring for the State of Illinois.

Methods

All laboratory methods, including organism culture, sample handling, test procedures, and data analyses, were in accordance with the recommendations of the U.S. Environmental Protection Agency (EPA) [1], the S-F Analytical Bioassay Laboratory Standard Operating Procedures, and the Illinois Environmental Protection Agency (IEPA) biomonitoring requirements as specified in the Springfield Metro Sanitary District-Sugar Creek Wastewater Treatment Plant NPDES permit.

Sample Collection and Handling

A photocopy of the chain-of-custody form is included in Appendix B. One 24-hour composite effluent sample and one receiving water grab sample were used as follows:

Description	Sample No.	Date Collected	Date Tested
Sugar Creek	TL0444.01	12/14/10	12/15-19/10
Effluent	TL0444.02	12/13-14/10	12/15-19/10

The samples were collected by Springfield Metro Sanitary District personnel and were shipped on ice to the S-F Analytical Bioassay Laboratory. Upon arrival, samples were logged in, physicochemical characterizations were conducted, and they were prepared for testing. Unused portions were refrigerated (4°C) for later use.

Test Organisms

All test organisms were cultured at the S-F Analytical Bioassay Laboratory. If necessary, fathead minnows were obtained from a commercial supplier (AquaTox, Inc., Hot Springs, Arkansas).

Test Procedures

Bioassays

Bioassay test conditions are summarized in Tables 1 and 2.

Physicochemical Monitoring

Total alkalinity, hardness, and total ammonia were measured initially on each sample. Total residual chlorine was measured initially on the effluent sample. Total alkalinity and hardness were measured once in the laboratory control.

Dissolved oxygen (DO), pH, and conductivity were measured initially and thereafter in all test solution renewals. DO and pH were measured in one test chamber or composite of each test solution after 48 and 96 hours.

Bioassay incubator temperature was electronically monitored hourly by thermocouple and data logger and a 24-hour summary of mean values was recorded.

Data Analysis

Pass/Fail criteria were applied to acute toxicity data. When appropriate an LC₅₀ (median lethal concentration) was calculated using a computer program.

Acute toxicity was defined according to the following IEPA criteria:

• Less than 50 percent survival of test organisms in 100 percent effluent at test termination (48 hours for *Ceriodaphnia dubia*; 96 hours for fathead minnows). That is, the LC₅₀ less than 100 percent for either species.

Quality Assurance

Part of the quality assurance and quality control (QA/QC) program at the S-F Analytical Bioassay Laboratory includes the performance of organisms concurrently tested in laboratory media. Tables 1 and 2 present the test acceptability criteria for laboratory control data. The results of the laboratory control tests are listed in Table 3.

In addition, other QA/QC procedures include performing monthly reference toxicant tests using reagent-grade sodium chloride. The results of reference toxicant tests conducted during the past 20 months on the appropriate test organisms are summarized in Appendix C.

Table 1

Table 1 Summary of Test Conditions for the Ceriodaphnia Acute Bloassay Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois December 15 through 17, 2010

1.	Test organism	Ceriodaphnia dubia (Crustacea: Cladocera)
2.	Test type	Static nonrenewal
3.	Age of test organisms	Less than 24 hours
4.	Test chamber size	30 mL
5.	Test solution volume	25 mL
6.	Renewal of test solutions	None
7.	Number of replicate chambers per solution	4
8.	Number of test organisms per chamber	5
9.	Primary control/dilution water	Receiving water; Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
11.	Effluent concentrations	6.25, 12.5, 25, 50, and 100 %
12.	Temperature	20 ± 1°C
13.	Feeding regime	None
14.	Aeration	None
15.	Test duration	48 hours
16.	Sampling scheme	One 24-hour composite effluent sample and one grab sample of receiving water. Maximum holding time of 36 hours between completion of collection and initial use for each sample. Laboratory water used was prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC ₅₀
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control.

Table 2

Summary of Test Conditions for the Fathead Minnow Acute Bioassay Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant

Springfield, Illinois December 15 through 19, 2010

1.	Test organism	Pimephales promelas (Osteichthyes: Cyprinidae)
2.	Test type	Static renewal
3.	Age of test organisms	12 days old
4.	Test chamber size	500 mL
5.	Test solution volume	250 mL
6.	Renewal of test solutions	At 48 hours
7.	Number of replicate chambers per solution	2
8.	Number of test organisms per chamber	10
9,	Primary control/dilution water	Receiving water; Sugar Creek
10.	Internal control water	Moderately hard reconstituted laboratory medium
11.	Effluent concentrations	6.25, 12.5, 25, 50, and 100 %
12.	Temperature	20 ± 1°C
13.	Feeding regime	0.15 mL live brine shrimp per container at 48 hours, prior to solution renewal.
14.	Aeration	None, unless DO concentration falls below 40% saturation (them, continuous at a rate not exceeding 100 bubbles per minute)
15.	Test duration	96 hours
16.	Sampling scheme	One 24-hour composite effluent sample and one grab sample of receiving water. Maximum holding time of 36 hours between collection and initial test use for each sample. Laboratory water prepared as one batch.
17.	Effects measured/Endpoint	Survival/LC30
18.	Test acceptability	90% or greater mean survival in the laboratory or receiving water control

Results

Photocopies of laboratory data and computer printouts of the statistical analyses are found in Appendix A. There were no excursions from the protocols and all test conditions were within the limits required by the EPA. The results of the tests are summarized below.

Acute Bioassays

Table 3 presents the results of the acute bioassays. The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC_{50} analysis was not conducted, but the value would be greater than 100 percent.

No acute toxicity was demonstrated to fathead minnows in the 100 percent effluent concentration. The LC₅₀ analysis was not conducted, but the value would be greater than 100 percent.

Laboratory control and receiving water data were acceptable in both tests.

Table 3 Summary of Results of Acute Bioassays Conducted for Springfield Metro Sanitary District Sugar Creek Wastewater Treatment Plant Springfield, Illinois December 15 through 19, 2010

Mean Percent Survival

Test Media	Ceriodaphnia dubia	Fathead Minnow
Laboratory Control	100	100
Sugar Creek Control	100	100
6.25%Effluent	100	100
12.5% Effluent	100	100
25% Effluent	100	100
50% Effluent	100	95
100% Effluent	100	100
LC ₅₀	>100%	>100%

Physicochemical Data

All physicochemical parameters measured satisfied the bioassay requirements (see Appendix A).

Conclusions

The results of the laboratory bioassays conducted on the effluent sample collected by Springfield Metro Sanitary District personnel on December 14, 2010 for NPDES biomonitoring, show the following:

- The effluent sample was not acutely toxic to *Ceriodaphnia dubia* at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- The effluent sample was not acutely toxic to fathead minnows at the 100 percent concentration using the 50 percent lethality criteria. The LC₅₀ value was greater than 100 percent.
- Laboratory and receiving water data were acceptable in both bioassays.

Reference

1. U.S. EPA. 2002. Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (Fifth Edition). EPA-821-R-02-012. U.S. EPA, Environmental Protection Agency, Office of Water, Washington, DC. 266 p.

FACILITY	NAME	AND	PERMIT	NUMBER:
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Sugar Creek WWTP IL0021971

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through

a. Name of receiving water b. Name of watershed (if known) South Fork of the Sangamon River United States Soil Conservation Service 14-digit watershed code (if known): c. Name of State Management/River Basin (if known): United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 07130007 d. Critical low flow of receiving stream (if applicable): acute cfs cfs	D	escription of Outfall.				
City or town, if applicable Sangamon IL	a.	Outfall number	010 - Excess Flow			
Sangamon IL	b.	Location	Springfield			
Comparison of the color of the same of the color of the same of			(City or town, if applicable) Sangamon		1.	•
(Latitude) (Longitude) c. Distance from shore (if applicable)			(County) 39° 47′ 32″ N		8	State) 9° 34' 59" W
d. Depth below surface (if applicable) e. Average daily flow rate f. Does this outfall have either an intermittent or a periodic discharge? If yes, provide the following information: Number of times per year discharge occurs: Average duration of each discharge: Average flow per discharge: Average flow per discharge: Any month during high flows g. Is outfall equipped with a diffuser? Any month during high flows O. Description of Receiving Waters. a. Name of receiving Water United States Soil Conservation Service 14-digit watershed code (if known): C. Name of State Management/River Basin (if known): United States Geological Survey 8-digit hydrologic cataloging unit code (if known): O. Ortical low flow of receiving stream (if applicable): acute ofs			(Latitude)		(L	ongitude)
e. Average daily flow rate	C.	Distance from shore	(if applicable)	_NA	ft.	
f. Does this outfall have either an intermittent or a periodic discharge? If yes, provide the following information: Number of times per year discharge occurs: Average duration of each discharge: Average flow per discharge: Average flow per discharge: Any month during high flows G. Is outfall equipped with a diffuser? Yes No Description of Receiving Waters. a. Name of receiving water Sugar Creek b. Name of watershed (if known) South Fork of the Sangamon River United States Soil Conservation Service 14-digit watershed code (if known): C. Name of State Management/River Basin (if known): United States Geological Survey 8-digit hydrologic cataloging unit code (if known): O. Critical low flow of receiving stream (if applicable): acute	d.	Depth below surface	e (if applicable)	NA	ft.	
Periodic discharge? Yes No (go to A.9.g.)	e.	Average daily flow r	ate		mgd	
Number of times per year discharge occurs: 57 (2010 data) Average duration of each discharge: Approx. 3 hours Average flow per discharge: 15.18 mgd Months in which discharge occurs: Any month during high flows g. Is outfall equipped with a diffuser? Yes ✓ No 0. Description of Receiving Waters. a. Name of receiving water Sugar Creek b. Name of watershed (if known) South Fork of the Sangamon River United States Soil Conservation Service 14-digit watershed code (if known): c. Name of State Management/River Basin (if known): United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 07130007 d. Critical low flow of receiving stream (if applicable): acute cfs	f.		re either an intermittent or a	Yes		No (go to A.9.g.)
Average flow per discharge: Average flow per discharge: Average flow per discharge: Months in which discharge occurs: Any month during high flows g. Is outfall equipped with a diffuser? Yes No O. Description of Receiving Waters. a. Name of receiving water Sugar Creek b. Name of watershed (if known) South Fork of the Sangamon River United States Soil Conservation Service 14-digit watershed code (if known): c. Name of State Management/River Basin (if known): United States Geological Survey 8-digit hydrologic cataloging unit code (if known): O7130007 d. Critical low flow of receiving stream (if applicable): acute cfs cfs		If yes, provide the fo	ollowing information:			
Average flow per discharge: Months in which discharge occurs: Any month during high flows g. Is outfall equipped with a diffuser? Yes No Description of Receiving Waters. a. Name of receiving water Sugar Creek b. Name of watershed (if known) South Fork of the Sangamon River United States Soil Conservation Service 14-digit watershed code (if known): c. Name of State Management/River Basin (if known): United States Geological Survey 8-digit hydrologic cataloging unit code (if known): O7130007 d. Critical low flow of receiving stream (if applicable): acute		Number of times pe	r year discharge occurs:		57 (2010 dat	<u>a)</u>
Months in which discharge occurs: Any month during high flows g. Is outfall equipped with a diffuser? Yes No No Description of Receiving Waters. a. Name of receiving water Sugar Creek b. Name of watershed (if known) South Fork of the Sangamon River United States Soil Conservation Service 14-digit watershed code (if known): c. Name of State Management/River Basin (if known): United States Geological Survey 8-digit hydrologic cataloging unit code (if known): O7130007 d. Critical low flow of receiving stream (if applicable): acute		Average duration of	each discharge:		Approx. 3 hou	<u>irs</u>
g. Is outfall equipped with a diffuser? Yes No Description of Receiving Waters. a. Name of receiving water Sugar Creek b. Name of watershed (if known) South Fork of the Sangamon River United States Soil Conservation Service 14-digit watershed code (if known): c. Name of State Management/River Basin (if known): United States Geological Survey 8-digit hydrologic cataloging unit code (if known): O7130007 d. Critical low flow of receiving stream (if applicable): acute cfs		Average flow per dis	scharge:		15.	18 mgd
a. Name of receiving water Sugar Creek b. Name of watershed (if known) South Fork of the Sangamon River United States Soil Conservation Service 14-digit watershed code (if known): c. Name of State Management/River Basin (if known): United States Geological Survey 8-digit hydrologic cataloging unit code (if known): O7130007 d. Critical low flow of receiving stream (if applicable): acute		Months in which dis	charge occurs:	Any month	during high flow	<u>vs</u>
a. Name of receiving water Sugar Creek b. Name of watershed (if known) South Fork of the Sangamon River United States Soil Conservation Service 14-digit watershed code (if known): c. Name of State Management/River Basin (if known): United States Geological Survey 8-digit hydrologic cataloging unit code (if known): O7130007 d. Critical low flow of receiving stream (if applicable): acute cfs cfs	g.	Is outfall equipped v	vith a diffuser?	Yes		No
b. Name of watershed (if known) South Fork of the Sangamon River United States Soil Conservation Service 14-digit watershed code (if known): c. Name of State Management/River Basin (if known): United States Geological Survey 8-digit hydrologic cataloging unit code (if known): O7130007 d. Critical low flow of receiving stream (if applicable): acute cfs cfs	0. D	escription of Receivi	ng Waters.			
b. Name of watershed (if known) South Fork of the Sangamon River United States Soil Conservation Service 14-digit watershed code (if known): c. Name of State Management/River Basin (if known): United States Geological Survey 8-digit hydrologic cataloging unit code (if known): O7130007 d. Critical low flow of receiving stream (if applicable): acute cfs cfs	a.	Name of receiving w	vater Sugar Creek			
United States Soil Conservation Service 14-digit watershed code (if known): c. Name of State Management/River Basin (if known): United States Geological Survey 8-digit hydrologic cataloging unit code (if known): d. Critical low flow of receiving stream (if applicable): acute cfs cfs		Ū				
c. Name of State Management/River Basin (if known): United States Geological Survey 8-digit hydrologic cataloging unit code (if known): d. Critical low flow of receiving stream (if applicable): acute cfs cfs	b.	Name of watershed	(if known)	South Fork of the Sar	ngamon River	
United States Geological Survey 8-digit hydrologic cataloging unit code (if known): d. Critical low flow of receiving stream (if applicable): acute cfs cfs		United States Soil C	Conservation Service 14-digit wa	itershed code (if known):		
d. Critical low flow of receiving stream (if applicable): acute cfs chronic cfs	C.	Name of State Man	agement/River Basin (if known):			
acute cfs chronic cfs		United States Geold	ogical Survey 8-digit hydrologic o	cataloging unit code (if kno	own):	07130007
				chronic	cfe	4
e. Total hardness of receiving stream at critical low flow (if applicable): mg/l of CaCO ₂	d.	acute	U10	J. 11		

FACILITY NAME AND Sugar Creek WWTP		IMBER:				- 44						Approved 1/14/99 Number 2040-0086
A.11. Description of T	reatment.						<u> </u>					
	of treatment a Primary Advanced	are provi	ided? C	Se	ecor	pply. ndary . Describe:	Preliminary	y Treatm	nent,	Settling, Chl	orina	ation
b. Indicate the f	ollowing rem	oval rate	es (as a	pplicable):								
Design BOD	removal or	Design (CBOD_	removal			75.0	00		%		
Design SS re	•	_	5				75.0	00				
Design P ren							NA			%		
-							-NA	<u> </u>				
Design N ren	noval						NA			%		
Other			-							%		
c. What type of	disinfection	is used f	or the e	effluent from	n th	is outfall? If disin	fection varies	s by seas	on, p	lease describe	€.	
d. Does the treat A.12. Effluent Testing parameters. Prodischarged. Do collected throug of 40 CFR Part 1 At a minimum, 6 Outfall number: PARAME	Information vide the ind not include the analysis 36 and other fluent testi	n. All Aplicated einformaconducter appro	oplican oplican offluent ation of eed usin priate of must be s Flow	ts that dis testing re n combine ng 40 CFR QA/QC rec pe based c	echa equi ed s Par quire on a	red by the permewer overflows rt 136 methods. ements for stan t least three sar LY VALUE Units	itting autho in this secti In addition dard method	rity <u>for e</u> on. All ir , this dat ds for an nust be n	ach on the same of	luent testing outfall through ation reported stromply with the strong st	h whed med th Questions and whether the world in the worl	nich effluent is ust be based on data A/QC requirements by 40 CFR Part 136. one-half years apart.
pH (Minimum)			7.50		├	s.u.						
pH (Maximum)			36.24		M	s.u. GD	13.10		MG	D	57.	
Flow Rate Temperature (Winter)			NA		141		13.10		IWIO		37.	
Temperature (Summer)		NA		-							
* For pH please r POLLUTAN	eport a minir	М	AXIMU	imum daily M DAILY IARGE Units		的现在分词 医结节	DAILY DISC	CHARGE Numb Samp	er of	ANALYTIC METHOD		ML / MDL
CONVENTIONAL AND	NONCONVI	ENTION	AL COI	MPOUNDS	S.	The second security second second second	4 ST 15 ST 1	2 1 Sec. 1939.	-4 - 250	A STATE OF THE STA		
BIOCHEMICAL OXYGEN												
DEMAND (Report one)	CBOD-5	185.0	0	mg/l		32.00	mg/l	57.00		5210-B		<1 mg/l
FECAL COLIFORM		20,00	0.00	col/100r	nl	384.00	col/100ml	57.00		9222-D		<i colony<="" td=""></i>
TOTAL SUSPENDED SO	LIDS (TSS)	82.00	o tanka and made	mg/l	SERVE VI	22.00	mg/l	57.00	apositi co	2240-D	: (255 a h s	<1 mg/l
	ana-andrews (1987年) - 经现代的数据等等的是	eura est est alla est de la companya est de la comp	19 医基基氏管管部分	ti eraking appear indige	(1995) 新春	STATE OF THE PROPERTY OF THE PROPERTY OF THE PARTY OF THE	Anger \$4.5 10 15 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16	named Property of Science	44-04-51	(4-20-2016年) - 古墨西哥尼斯的美国的	4.59(4)(4)(5)	e, automorphismostatic i Talesta Mattalia ("Selvia Mattalia")

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM
2A YOU MUST COMPLETE

Sugar Creek WWTP IL0021971

Form Approved 1/14/99 OMB Number 2040-0086

ВА	SI	C APPLICATION INFORMATION
PAR	RT B	. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).
All a	pplic	ants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).
B.1.	inf	low and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.
	Bri	efly explain any steps underway or planned to minimize inflow and infiltration.
	N/	A - Combined Sewer System
B.2.	Thi the	pographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. s map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show entire area.) The area surrounding the treatment plant, including all unit processes.
	D.	The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.
	c.	Each well where wastewater from the treatment plant is injected underground.
	d.	Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.
	e.	Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.
	f.	If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? Yes Vo	a
If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).	
Name:	
Mailing Address:	
Telephone Number:	
Responsibilities of Contractor:	

B.5. Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

١.	List the outfall number	(assigned in	question A.9) for	each outfall t	hat is covered by	this implementation	schedule.

b.	Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies
	YesNo

B.4. Operation/Maintenance Performed by Contractor(s).

	Y NAME AND PER eek WWTP IL00							roved 1/14/99 nber 2040-0086
С	If the answer to B	.5.b is "Yes," br	iefly describe, incl	uding new max	imum daily inflow	rate (if applicat	ole).	
d.		nprovements pla	anned independer	ntly of local, Sta			mentation steps listed planned or actual con	
			Schedule		Actual Completion	1		
	Implementation S	tage	MM / DD /	YYYY	MM / DD / YYYY			
	- Begin constructi	ion			//			
	- End construction	n						
	- Begin discharge	•						
	- Attain operation	al level						
e.	Have appropriate Describe briefly:		-		ate requirements b	een obtained?	Yes	_No
sta pol Ou		analytes not ad lust be no more MAXIN	dressed by 40 CF	R Part 136. At	t a minimum, efflue	ent testing data	ppropriate QA/QC rec must be based on at ANALYTICAL	
						Samples	METHOD	
	TIONAL AND NON	NCONVENTION	AL COMPOUND	S.				
AMMONIA —————	· · ·	11.40	mg/l	2.75	mg/l	57.00	4500NH3-F	<0.01 mg/l
CHLORIN RESIDUA	E (TOTAL L, TRC)	2.00	mg/l	0.20	mg/l	57.00	Hach	0.10 mg/l
DISSOLV	ED OXYGEN							
NITROGE	N (TKN) PLUS NITRITE N							
OIL and G	GREASE							
PHOSPH	ORUS (Total)							
TOTAL DI SOLIDS (SSOLVED TDS)							
OTHER								
REFE	R TO THE A	APPLICAT	医多种性结节性 医甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基				OTHER PART	S OF FORM

FACILITY NAME AND PERMIT NUMBER:	
FACILITY NAME AND PERMIT NUMBER:	

SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Sugar Creek WWTP IL0021971

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Treatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: 010 -Excess Flow (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	1	MAXIML	JM DAIL	Y	Α\	/ERAGI	DAILY	DISCH	ARGE		
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples	ANALYTICAL METHOD	ML/ MDL
METALS (TOTAL RECOVERABLE),	CYANIDE,	PHENO	LS, AND	HARDNE	SS.						
ANTIMONY	1										
ARSENIC	,	This o	utfall	is exc	ss flo	w and	is not	samp	led for t	hese paramete	rs
BERYLLIUM			_								
CADMIUM											
CHROMIUM			·								
COPPER											
LEAD											
MERCURY											
NICKEL											
SELENIUM											
SILVER											
THALLIUM											
ZINC											
CYANIDE											
TOTAL PHENOLIC COMPOUNDS											
HARDNESS (AS CaCO ₃)											
Use this space (or a separate sheet) t	to provide in	nformatio	n on othe	metals re	equested	by the pe	rmit writer	<u> </u>		T	·
	_										

Outfall number: 010 -Excess FI POLLUTANT		MIXAN	e for ead JM DAIL HARGE		discharg A\					States.)	
	Conc.			Units	Conc.	Units	Mass	Units	Number of	ANALYTICAL METHOD	ML/ MDL
VOLATILE ORGANIC COMPOUNDS.	170.2500	10.141.141.14				26.3	175	1 1 1 1 1 1 1 1 1	Samples		
ACROLEIN											
ACRYLONITRILE							,				
BENZENE		Thi	s outfa	ll is e	cess f	ow a	nd is r	ot saı	npled fo	r these parame	ters
BROMOFORM											
CARBON TETRACHLORIDE											
CLOROBENZENE											
CHLORODIBROMO-METHANE											
CHLOROETHANE											
2-CHLORO-ETHYLVINYL ETHER		_									
CHLOROFORM											
DICHLOROBROMO-METHANE											
1,1-DICHLOROETHANE											
1,2-DICHLOROETHANE											
TRANS-1,2-DICHLORO-ETHYLENE											
1,1-DICHLOROETHYLENE											
1,2-DICHLOROPROPANE											
1,3-DICHLORO-PROPYLENE											
ETHYLBENZENE											
METHYL BROMIDE											
METHYL CHLORIDE											
METHYLENE CHLORIDE											
1,1,2,2-TETRACHLORO-ETHANE											
TETRACHLORO-ETHYLENE											
TOLUENE											

Sugar Creek WWTP IL0021971

Outfall number: 010 -Excess FI	_ (Comp	lete ond	e for ea	ch outfall	discharg	ing efflu	ent to w	aters of	the United	States.)	
POLLUTANT	٨		JM DAIL HARGE	Y	Ą۱	/ERAGE	E DAILY.	DISCH	ARGE		
	Conc.	Units		Units	Conc.	Units	Mass	Units	Number of	ANALYTICAL METHOD	ML/ MDL
444 TRICHI ODOSTUANE		14.111	tan al	2 3 3 6 7			+	36.548	Samples		
1,1,1-TRICHLOROETHANE											
1,1,2-TRICHLOROETHANE											
TRICHLORETHYLENE					,						
VINYL CHLORIDE											
Use this space (or a separate sheet) to	provide in	formatio	n on othe	r volatile o	rganic cor	npounds	requested	d by the p	permit writer.		
ACID-EXTRACTABLE COMPOUNDS											
P-CHLORO-M-CRESOL											
2-CHLOROPHENOL	7	his o	utfall	is exce	ss flov	v and	is not	samp	led for t	nese paramete	rs
2,4-DICHLOROPHENOL					ı						
2,4-DIMETHYLPHENOL											
4,6-DINITRO-O-CRESOL											
2,4-DINITROPHENOL											
2-NITROPHENOL											
4-NITROPHENOL											
PENTACHLOROPHENOL											
PHENOL											
2,4,6-TRICHLOROPHENOL											
Use this space (or a separate sheet) to	provide in	formatio	n on othe	r acid-extr	actable co	mpound	s requeste	ed by the	permit writer.		
BASE-NEUTRAL COMPOUNDS.	г	r	<u></u>		Γ	<u> </u>		1	[T .
ACENAPHTHENE											
ACENAPHTHYLENE											
ANTHRACENE											
BENZIDINE											
BENZO(A)ANTHRACENE											
BENZO(A)PYRENE											

Sugar Creek WWTP IL0021971

Outfall number: 010 -Excess Flo POLLUTANT.	_ : :_	IAXIMU	JM DAIL		_		DAILY			States.)	
	Conc.	DISCI Units	HARGE Mass	Units	Conc.	Units	Mass	Units	Number	ANALYTICAL	ML/ MDL
					ale const		100		of Samples	METHOD	
3,4 BENZO-FLUORANTHENE											!
BENZO(GHI)PERYLENE											
BENZO(K)FLUORANTHENE		Tł	is out	fall is	excess	flow	and is	not s	ampled 1	or these paran	neters
BIS (2-CHLOROETHOXY) METHANÉ											
BIS (2-CHLOROETHYL)-ETHER											
BIS (2-CHLOROISO-PROPYL) ETHER											
BIS (2-ETHYLHEXYL) PHTHALATE											
4-BROMOPHENYL PHENYL ETHER											
BUTYL BENZYL PHTHALATE											
2-CHLORONAPHTHALENE											
4-CHLORPHENYL PHENYL ETHER											
CHRYSENE											
DI-N-BUTYL PHTHALATE											
DI-N-OCTYL PHTHALATE											
DIBENZO(A,H) ANTHRACENE											
1,2-DICHLOROBENZENE											
1,3-DICHLOROBENZENE											
1,4-DICHLOROBENZENE											
3,3-DICHLOROBENZIDINE											
DIETHYL PHTHALATE											
DIMETHYL PHTHALATE											
2,4-DINITROTOLUENE											
2,6-DINITROTOLUENE											
1,2-DIPHENYLHYDRAZINE											

Sugar Creek WWTP IL0021971

Form Approved 1/14/99 OMB Number 2040-0086

Outfall number: 010 -Excess Flo (Complete once for each outfall discharging effluent to waters of the United States.)												
POLLUTANT	٨		JM DAIL` HARGE	Y	A۱	/ERAGE	EDAILY	DISCH	ARGE			
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples	ANALYTICAL METHOD	ML/ MDL	
FLUORANTHENE												
FLUORENE												
HEXACHLOROBENZENE		This	outfa	ll is ex	cess fl	ow an	d is n	ot san	npled for	these parame	ters	
HEXACHLOROBUTADIENE												
HEXACHLOROCYCLO- PENTADIENE									!			
HEXACHLOROETHANE												
INDENO(1,2,3-CD)PYRENE												
ISOPHORONE												
NAPHTHALENE												
NITROBENZENE												
N-NITROSODI-N-PROPYLAMINE												
N-NITROSODI- METHYLAMINE												
N-NITROSODI-PHENYLAMINE												
PHENANTHRENE						,						
PYRENE												
1,2,4-TRICHLOROBENZENE									-			
Use this space (or a separate sheet) to	provide in	formatio	n on other	base-neu	utral comp	ounds re	quested b	y the pe	rmit writer.			
Use this space (or a separate sheet) to	provide in	formatio	n on other	pollutant	s (e.g., pe	sticides)	requested	by the p	ermit writer.			
	State A A State Control	es president	and the second	is the sign time of		54,58,76.2.00	and the second	A State of Texas		Englished Auto Avenue and State		

END OF PART D.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM
2A YOU MUST COMPLETE

Sugar Creek WWTP IL0021971

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

	escription of Outfall.			
a.	Outfall number	011 - High Flow Bypass		
b.	Location	Springfield	<u>-</u>	62702
		(City or town, if applicable) Sangamon		(Zip Code) IL
		(County) 39° 47' 37" N	······································	(State) 89° 34′ 57" W
		(Latitude)		(Longitude)
c.	Distance from shore	(if applicable)	_NA	ft.
d.	Depth below surface	e (if applicable)	NA	_ ft.
e.	Average daily flow ra	ate		mgd
f.	Does this outfall hav periodic discharge?	ve either an intermittent or a	/	
	,		Yes	No (go to A.9.g.)
	If yes, provide the fo	ollowing information:		
	Number of times pe	r year discharge occurs:		22 (2010 data)
	Average duration of	each discharge:		4.33 hours
	Average flow per dis	scharge:		1.12 mgd
	Months in which dis-	charge occurs:	Any month of	during high flows
_	Is outfall equipped v	with a diffusar?	Yes	√ No
g.	is oddail equipped v	viui a uiiiusei :	163	NO
חו	escription of Receivi	ng Waters		
	ssorphon of Reservi	119 114.010.		
a.	Name of receiving w	vater Sugar Creek		
и.				
	Name of watershed	(if known)	South Fork of the Sand	gamon River
b.	Name of watershed	(if known)	South Fork of the San	gamon River
		(if known) Conservation Service 14-digit wate		gamon River
b	United States Soil C	Conservation Service 14-digit wate		gamon River
	United States Soil C			gamon River
b	United States Soil C	Conservation Service 14-digit wate	ershed code (if known):	
b. c.	United States Soil C Name of State Mana United States Geolo	Conservation Service 14-digit water agement/River Basin (if known): ogical Survey 8-digit hydrologic ca	ershed code (if known):	
b	United States Soil C Name of State Mana United States Geold Critical low flow of re	Conservation Service 14-digit water agement/River Basin (if known): ogical Survey 8-digit hydrologic careceiving stream (if applicable):	ershed code (if known):	wn): <u>07130007</u>
b. c.	United States Soil C Name of State Mana United States Geolo Critical low flow of reacute	Conservation Service 14-digit water agement/River Basin (if known): ogical Survey 8-digit hydrologic careceiving stream (if applicable):	ershed code (if known): ataloging unit code (if known)	wn): <u>07130007</u> cfs

FACILITY NAME AND F Sugar Creek WWTP IL		BER:							pproved 1/14/99 umber 2040-0086
A.11. Description of Tro	eatment.					., <u></u>			
	treatment are imary Ivanced	e provided? Cf	Sec	apply. ondary er. Describe:	Bypass. No	o treatment	: available		
b. Indicate the fol	lowing remov	/al rates (as ar	oplicable):						
Design BOD _s r	emoval or De	esian CBOD r	emoval				%		
Design SS ren		5							
Design P remo					NA		%		
_					NA	<u> </u>		'	
Design N remo	ovai				NA			1	
Other							%	1	
c. What type of d	isinfection is	used for the e	fluent from	this outfall? If disi	nfection varies	by season,	please descri	oe.	
If disinfection i	s by chlorinat	ion, is dechlor	ination used	for this outfall?		Y	es _	✓	No
d. Does the treat	ment plant ha	ive post aerati	on?		_	Y	es _	✓	_ No
Outfall number: PARAMET				AILY VALUE Units	Value	(2014) P. S.	ERAGE DAIL`	美国的	E lumber of Samples
e de la companya della companya della companya de la companya della companya dell		v	aiue	Office	Value	ensuksimanan housu			
pH (Minimum)				s.u.					
pH (Maximum)				s.u.					
Flow Rate		NA							
Temperature (Winter) Temperature (Summer)		NA			 		 		
* For pH please re	port a minimu	5892-811-600 PM 12-42-159-W	Javeti Authorit (1905)	/alue	400 a			See Coosy L	
POLLUTANT		MAXIMUI DISCH		AVERAG	E DAILY DISC	HARGE	ANALYTI	1、一种种的	ML/MDL
		Conc.	Units	Conc.	Units	Number of Samples	The state of the s		
CONVENTIONAL AND N	IONCONVEN	ITIONAL COM	POUNDS.						
BIOCHEMICAL OXYGEN	BOD-5								
DEMAND (Report one)	CBOD-5								
FECAL COLIFORM									
TOTAL SUSPENDED SOL	IDS (TSS)		Titler a straffets	100 April 100 Ap				electric	
REFER TO THE	E APPLIC	CATION (VERVI	ND OF PAR EW TO DE U MUST CO	TERMINE	4. 學過程於此一個於此首於於此時以不可以	OTHER	PAF	RTS OF FORM

Sugar Creek WWTP IL0021971

PAR	T B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).
All a	oplicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).
B.1.	Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.
	gpd
	Briefly explain any steps underway or planned to minimize inflow and infiltration.
	N/A - Combined Sewer System
B.2.	Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)
	a. The area surrounding the treatment plant, including all unit processes.
	b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.
	c. Each well where wastewater from the treatment plant is injected underground.
	d. Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.
	e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.
	f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.
	Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g, chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.
B.4.	Operation/Maintenance Performed by Contractor(s).
	Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor?YesNo
	If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).
	Name:
	Mailing Address:
	Telephone Number:
	Responsibilities of Contractor:
B.5.	Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)
	a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.
	b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies. Yes No

	Y NAME AND PERI reek WWTP IL002						oved 1/14/99 ber 2040-0086					
c	If the answer to B.	5.b is "Yes," brief	ly describe, inclu	iding new maxim	um daily inflow r	ate (if applicab	le).					
d.		provements plan	ned independen	tly of local, State		es of completion for the implementation steps listed below, as or Federal agencies, indicate planned or actual completion dates, as						
			Schedule	Ad	tual Completion							
	Implementation Sta	age	MM / DD /	YYYY MI	M/DD/YYYY							
	- Begin construction	on	//_		_//							
	- End construction		//_									
	- Begin discharge											
	- Attain operationa	l level	//_		_//							
e.	Have appropriate p		-		•	een obtained? 	Yes	_No				
pol Ou	ndard methods for a lutant scans and mu tfall Number: <u>011</u> OLLUTANT	ist be no more th		-half years old. aken	minimum, efflue SE DAILY DISCH	_	must be based on at l	east three				
		DISCH Conc.	IARGE Units	Conc.	Units	Number of	ANALYTICAL	ML/MDL				
						Samples	METHOD					
	TIONAL AND NON	CONVENTIONA	L COMPOUNDS	i. 								
AMMONIA	A (as N)							_				
CHLORIN RESIDUA	IE (TOTAL L, TRC)											
DISSOLV	ED OXYGEN											
TOTAL K. NITROGE	JELDAHL											
	PLUS NITRITE											
NITROGE OIL and G												
	ORUS (Total)											
	,											
SOLIDS (ISSOLVED TDS)											
OTHER												
REFE	R TO THE A	PPLICATIO	ON OVERV	END OF PA TIEW TO DI OU MUST (ETERMINE		OTHER PART	S OF FORM				

FACILITY NAME AND PERMIT NUMBER: Form Approved 1/14/99 OMB Number 2040-0086 Sugar Creek WWTP IL0021971 SUPPLEMENTAL APPLICATION INFORMATION PART D. EXPANDED EFFLUENT TESTING DATA Refer to the directions on the cover page to determine whether this section applies to the treatment works. Effluent Testing: 1.0 mgd and Pretreatment Treatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old. Outfail number: 011 - Bypass (Complete once for each outfall discharging effluent to waters of the United States.) POLLUTANT MAXIMUM DAILY AVERAGE DAILY DISCHARGE DISCHARGE Units Mass Conc. ANALYTICAL ML/ MDL Conc Units Units Mass Units Number **METHOD** of Samples METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS. ANTIMONY This dutfall is excess flow and is not sampled for these parameters ARSENIC BERYLLIUM CADMIUM CHROMIUM COPPER LEAD MERCURY NICKEL SELENIUM SILVER

Use this space (or a separate sheet) to provide information on other metals requested by the permit writer.

THALLIUM

CYANIDE

TOTAL PHENOLIC COMPOUNDS

HARDNESS (AS CaCO₃)

ZINC

Sugar Creek WWTP IL0021971

Outfall number: 011 - Bypass									the United	States.)	
POLLUTANT		DISCH	JM DAIL` HARGE	NEWS T			DAILY				
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples	ANALYTICAL METHOD	ML/ MDL
VOLATILE ORGANIC COMPOUNDS.											
ACROLEIN											
ACRYLONITRILE											
BENZENE		Thi	outfa	ll is e	ccess f	low a	nd is n	ot sai	npled fo	r these parame	ters
BROMOFORM											
CARBON TETRACHLORIDE											
CLOROBENZENE											
CHLORODIBROMO-METHANE											
CHLOROETHANE											
2-CHLORO-ETHYLVINYL ETHER											
CHLOROFORM							_				
DICHLOROBROMO-METHANE											
1,1-DICHLOROETHANE									_		
1,2-DICHLOROETHANE	-										
TRANS-1,2-DICHLORO-ETHYLENE											
1,1-DICHLOROETHYLENE											
1,2-DICHLOROPROPANE											
1,3-DICHLORO-PROPYLENE											
ETHYLBENZENE											
METHYL BROMIDE											
METHYL CHLORIDE											
METHYLENE CHLORIDE				-							
1,1,2,2-TETRACHLORO-ETHANE											
TETRACHLORO-ETHYLENE											
TOLUENE											

Sugar Creek WWTP IL0021971

Outfall number: 011 - Bypass	_ (Compl	lete ond	e for eac	ch outfail	discharg	ging efflu	ent to w	aters of	the United	States.)	
POLLUTANT			JM DAIL HARGE	Υ	A\	/ERAGE	DAILY	DISCH	ARGE		No.
	Conc,		Mass	Units	Conc.	Units	Mass	Units	Number of Samples	ANALYTICAL METHOD	ML/ MDL
1,1,1-TRICHLOROETHANE											
1,1,2-TRICHLOROETHANE											
TRICHLORETHYLENE											
VINYL CHLORIDE											
Use this space (or a separate sheet) to	provide in	formatio	n on other	volatile c	rganic cor	npounds	requeste	d by the p	permit writer.		
ACID-EXTRACTABLE COMPOUNDS											
P-CHLORO-M-CRESOL											
2-CHLOROPHENOL	7	'his o	utfall	is exce	ss flov	v and	is not	samp	led for t	hese paramete	rs
2,4-DICHLOROPHENOL		-									
2,4-DIMETHYLPHENOL											
4,6-DINITRO-O-CRESOL											
2,4-DINITROPHENOL											
2-NITROPHENOL											
4-NITROPHENOL											
PENTACHLOROPHENOL											
PHENOL											
2,4,6-TRICHLOROPHENOL											
Use this space (or a separate sheet) to	provide in	formatio	n on other	acid-extr	actable co	mpounds	requeste	ed by the	permit writer.		
BASE-NEUTRAL COMPOUNDS.	<u></u>		L			<u> </u>		<u> </u>	<u>L</u>	<u> </u>	
ACENAPHTHENE											
ACENAPHTHYLENE											
ANTHRACENE											
BENZIDINE											
BENZO(A)ANTHRACENE											
BENZO(A)PYRENE											

Outfall number: 011 - Bypass									the United	States.)	bears. The astronomy suggests	
POLLUTANT		DISCH	JM DAIL' HARGE	(0166)	3.年级第		DAILY					
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples	ANALYTICAL METHOD	ML/MDL	
3,4 BENZO-FLUORANTHENE												
BENZO(GHI)PERYLENE												
BENZO(K)FLUORANTHENE		Tł	is out	fall is	excess	flow	and is	not s	ampled f	or these paran	neters	
BIS (2-CHLOROETHOXY) METHANE								-				
BIS (2-CHLOROETHYL)-ETHER												
BIS (2-CHLOROISO-PROPYL) ETHER												
BIS (2-ETHYLHEXYL) PHTHALATE						-						
4-BROMOPHENYL PHENYL ETHER												
BUTYL BENZYL PHTHALATE												
2-CHLORONAPHTHALENE												
4-CHLORPHENYL PHENYL ETHER												
CHRYSENE			İ									
DI-N-BUTYL PHTHALATE												
DI-N-OCTYL PHTHALATE												
DIBENZO(A,H) ANTHRACENE											·	
1,2-DICHLOROBENZENE												
1,3-DICHLOROBENZENE										[
1,4-DICHLOROBENZENE												
3,3-DICHLOROBENZIDINE												
DIETHYL PHTHALATE												
DIMETHYL PHTHALATE												
2,4-DINITROTOLUENE												
2,6-DINITROTOLUENE												
1,2-DIPHENYLHYDRAZINE												

Sugar Creek WWTP IL0021971

POLLUTANT	No. of the	DISC	JM DAIL' HARGE		以此 鄉		DAILY						
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples	ANALYTICAL METHOD	ML/ MDL		
FLUORANTHENE													
FLUORENE													
HEXACHLOROBENZENE		This	outfa	ll is ex	cess fl	ow an	d is n	ot san	npled for	these parame	ters		
HEXACHLOROBUTADIENE													
HEXACHLOROCYCLO- PENTADIENE													
HEXACHLOROETHANE													
INDENO(1,2,3-CD)PYRENE													
ISOPHORONE													
NAPHTHALENE													
NITROBENZENE													
N-NITROSODI-N-PROPYLAMINE													
N-NITROSODI- METHYLAMINE													
N-NITROSODI-PHENYLAMINE													
PHENANTHRENE													
PYRENE													
1,2,4-TRICHLOROBENZENE													
Use this space (or a separate sheet) to	provide ir	formatio	n on other	base-nei	utral comp	ounds re	quested t	by the pe	rmit writer.		T		
Use this space (or a separate sheet) to	provide ir	formatio	n on other	pollutant	s (e.g., pe	sticides)	requested	by the p	l permit writer.	<u></u>	<u> </u>		

END OF PART D.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM
2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

Sugar Creek WWTP IL0021971

SU	PPLEMENTAL	APPLICATION INFORMATION
All tr		IAL USER DISCHARGES AND RCRA/CERCLA WASTES ing discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes mus
GEN	NERAL INFORMA	TION:
₹,1.	_	n. Does the treatment works have, or is it subject to, an approved pretreatment program?
	YesNo	
₹.2.		nt Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types discharge to the treatment works.
	a. Number of non-ca	tegorical SIUs. 1.00
	b. Number of ClUs.	1.00
	NIFICANT INDUC	FRIAL LICED INFORMATION.
nt, Parking	กระบบสิงกระสร้างสำคัญเรื่องสำคัญเรื่องสำคัญ	TRIAL USER INFORMATION:
		mation for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 on requested for each SIU.
₹.3.	Significant Industrial pages as necessary.	User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional
	Name:	Aramark Services, Inc.
	Mailing Address:	4800 Industrial Drive, P.O. Box 3206 Springfield IL 62708
4 .	Industrial Processes	. Describe all of the industrial processes that affect or contribute to the SIU's discharge.
	Industrial Laundry	·
F.5.	Principal Product(s) discharge.	and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's
	Principal product(s):	laundry wash water
	Raw material(s):	Soap and conditioners
₹.6.	Flow Rate.	
	Process wastewate per day (gpd) and	er flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons whether the discharge is continuous or intermittent.
	80,000.00	gpd (continuous orintermittent)
	b. Non-process was system in gallons	tewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection per day (gpd) and whether the discharge is continuous or intermittent.
	4,000.00	gpd (continuous orintermittent)
F.7.	Pretreatment Standa	rds. Indicate whether the SIU is subject to the following:
	a. Local limits	✓ YesNo
	b. Categorical pretre	atment standardsNo
	If subject to categorications	al pretreatment standards, which category and subcategory?

FACILITY NAME AND PERMIT NUMBER:

Sugar Creek WWTP IL0021971

	and the control of the state of	
SU	PPLEMENTAL	APPLICATION INFORMATION
All tı	e nate e caracte albania.	AL USER DISCHARGES AND RCRA/CERCLA WASTES ng discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must
GEI	NERAL INFORMAT	TON:
F.1.	Pretreatment Program	n. Does the treatment works have, or is it subject to, an approved pretreatment program?
	✓_YesNo	
F.2.		t Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types discharge to the treatment works.
	a. Number of non-cat	egorical SIUs. 1.00
	b. Number of CIUs.	1.00
	NIEICANT INDUST	PIAL LISED INCORMATION:
3000	El meredologi i via ander Establica i elle	RIAL USER INFORMATION: nation for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8
		n requested for each SIU.
F.3.	Significant Industrial pages as necessary.	User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional
	Name:	Contech Construction Products, Inc.
	Mailing Address:	1110 Stevenson Drive Springfield, IL 62703
F.4.		Describe all of the industrial processes that affect or contribute to the SIU's discharge.
	Washwater from ex	truded PVC pipe manufacturing.
F.5.	Principal Product(s) a discharge.	and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's
	Principal product(s):	Extruded PVC pipe
	Raw material(s):	PVC resin
F.6.	Flow Rate.	
	a. Process wastewate per day (gpd) and v	er flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons whether the discharge is continuous or intermittent.
	200.00 g	pd (continuous orintermittent)
	system in gallons p	ewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection per day (gpd) and whether the discharge is continuous or intermittent.
	500.00 g	pd (continuous orintermittent)
F.7.	Pretreatment Standar	ds. Indicate whether the SIU is subject to the following:
	a. Local limits	
		atment standards YesNo
	If subject to categorica	I pretreatment standards, which category and subcategory?
	40 CFR 463 plastic	forming

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- 17	_		.	~ .	100	_			1			1.13		- 1	•	-		$\overline{}$		-	• 1	^				. 1	_	^	_					•	^		т
		Ŀ	,,	-	12.5	-	w		1.1	: E	١	100	- 42	۸.	•	_	48		Δ		- 11	14	IN	100	FГ	M I	-	. 1		. 11	л	Δ	11.	-11		т	J

PART G. COMBINED SEWER SYSTEMS

If the treatment works has a combined sewer system, complete Part G.

- G.1. System Map. Provide a map indicating the following: (may be included with Basic Application Information)
 - a. All CSO discharge points.
 - b. Sensitive use areas potentially affected by CSOs (e.g., beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding natural resource waters).
 - c. Waters that support threatened and endangered species potentially affected by CSOs.
- **G.2.** System Diagram. Provide a diagram, either in the map provided in G.1. or on a separate drawing, of the combined sewer collection system that includes the following information:
 - a. Locations of major sewer trunk lines, both combined and separate sanitary.
 - b. Locations of points where separate sanitary sewers feed into the combined sewer system.
 - c. Locations of in-line and off-line storage structures.
 - d. Locations of flow-regulating devices.
 - e. Locations of pump stations.

CSO	\sim	TEA	110.	
	\mathbf{v}		LLO.	

Comple	te questions G.3 throug	h G.6 once for each CSO discharge point.		
G.3. De	scription of Outfall.			
a.	Outfall number	009 - Harvard Park CSO		
b.	Location	Springfield	62707	
		(City or town, if applicable)	(Zip Code)	
		Sangamon	IL	,
		(County)	(State)	
		39° 46' 25" N	89° 37' 41" W	
		(Latitude)	(Longitude)	
	Distance of the control of the contr	a Paulida	a	
C.	Distance from shore (if	,	ft.	
d.	Depth below surface (if	,	ft.	
e.	Which of the following v	vere monitored during the last year for this CS	0?	
	✓ _Rainfall	CSO pollutant concentrations	✓ CSO frequency	
	✓ CSO flow volume	Receiving water quality		
f.	How many storm events	s were monitored during the last year?	28.00	
G.4. CS	O Events.			
a.	Give the number of CS	O events in the last year.		
	28.00 events (Y	_ actual or approx.)		
b.	Give the average durati	on per CSO event.		
	4.33 hours (actual or approx.)		

FACILITY NAME AND PERMIT NUMBER: Sugar Creek WWTP IL0021971	Form Approved 1/14/99 OMB Number 2040-0086
c. Give the average volume per CSO event.	
1.44 million gallons (actual or approx.)	
d. Give the minimum rainfall that caused a CSO event in the last	ear.
0.06 inches of rainfall	
G.5. Description of Receiving Waters.	
a. Name of receiving water: unnamed tributary to Sugar Cre	ek
b. Name of watershed/river/stream system: Sogth Fork of the S	angamon River
United States Soil Conservation Service 14-digit watershed con	e (if known):
c. Name of State Management/River Basin:	
United States Geological Survey 8-digit hydrologic cataloging u	nit code (if known): 07130007
G.6. CSO Operations.	
Describe any known water quality impacts on the receiving water c permanent or intermittent shell fish bed closings, fish kills, fish adviquality standard).	aused by this CSO (e.g., permanent or intermittent beach closings, sories, other recreational loss, or violation of any applicable State water
None. The Sanitary District is in the process of developing	LTCP for this discharge.
아들은 사람들은 아이들 아이들 때문에 가장 아이들 때문에 가장 아이들이 아니는	PART G. DETERMINE WHICH OTHER PARTS OF FORM

2A YOU MUST COMPLETE.

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FORM

2S NPDES

NPDES FORM 2S APPLICATION OVERVIEW

PRELIMINARY INFORMATION

This page is designed to indicate whether the applicant is to complete Part 1 or Part 2. Review each category, and then complete Part 1 or Part 2, as indicated. For purposes of this form, the term "you" refers to the applicant. "This facility" and "your facility" refer to the facility for which application information is submitted.

FACILITIES INCLUDED IN ANY OF THE FOLLOWING CATEGORIES MUST COMPLETE PART 2 (PERMIT APPLICATION INFORMATION).

- 1. Facilities with a currently effective NPDES permit.
- 2. Facilities which have been directed by the permitting authority to submit a full permit application at this time.

ALL OTHER FACILITIES MUST COMPLETE PART 1 (LIMITED BACKGROUND INFORMATION).

FACILITY NAME AND PERMIT NUMBER:

Sugar Creek WWTP IL0021971

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PART 1.	I IMI	TFD	BACK	GROUND	INFOR	MATION

This part should be completed only by "sludge-only" facilities - that is, facilities that do not currently have, and are not applying for, an NPDES permit for a direct discharge to a surface body of water.

For purposes of this form, the term "you" refers to the applicant. "This facility" and "your facility" refer to the facility for which application information is submitted.

1.	Fac	acility Information.					
	a.	Facility name					
	b.	Mailing Address					
	C.	Contact person					
		Title					
		Telephone number					
	đ.	Facility Address (not P.O. B ox)					
	e.	Indicate the type of facility					
		Publicly owned treatmer	nt works (POTW) Privately owned treatment works				
		Federally owned treatme	ent works Blending or treatment operation				
		Surface disposal site	Sewage sludge incinerator				
		Other (describe)					
2.	App	licant Information.					
	a.	Applicant name					
	b.	Mailing Address					
		-					
,	C.	Contact person					
		Title					
		Telephone number					
	d.	Is the applicant the owner or operator (or both) of this facility?					
		owner operator					
•	₽.	Should correspondence regarding this permit be directed to the facility or the applicant?					
		facility applicant					

Į.	FACILITY NAME AND PERMIT NUMBER: Sugar Creek WWTP IL0021971				Form Approved 1/14/99 OMB Number 2040-0086				
3.	Sev	Sewage Sludge Amount. Provide the total dry metric tons per latest 365 day period of sewage sludge handled under the following practices:							
	a. Amount generated at the facility				dry metric tons				
	b.	Amount received from	n off site			dry metric tons			
	C.	Amount treated or ble	ended on site			dry metric tons			
	d.	Amount sold or given	away in a bag or other container fo	r application to t	he land	dry metric tons			
	e. Amount of bulk sewage sludge shipped off site for treatment or blendingf. Amount applied to the land in bulk form			<u></u>	dry metric tons				
						dry metric tons			
	g.	g. Amount placed on a surface disposal site				dry metric tons			
	h.	Amount fired in a sew	age sludge incinerator			dry metric tons			
	i.	Amount sent to a mur	nicipal solid waste landfill		dry metric tons				
	j.	•	osed by another practice		dry metric tons				
4.	Pollutant Concentrations. Using the table below or a separate attachment, provide existing sewage sludge monitoring data for the pollutant which limits in sewage sludge have been established in 40 CFR part 503 for this facility's expected use or disposal practices. If available, ba data on three or more samples taken at least one month apart and no more than four and one-half years old.								
		POLLUTANT	CONCENTRATION		ICAL METHOD	DETECTION LEVEL FOR ANALYSIS			
ADC	ENIC		(mg/kg dry weight)						
CADMIUM									
CHROMIUM		IVI							
	PER								
LEA	D								
MER	MERCURY								
MOLYBDENUM		NUM							
NICI	KEL								
SEL	ENIUN	1			····				
ZINC	:								
 5.	Tre	atment Provided At Y	our Facility.						
					- f 1714 - O				
	a.	a. Which class of pathogen reduction does the sewage sludge meet at your facility?							
	Class A Class B Neither or unknown								
	b. Describe, on this form or another sheet of paper, any treatment processes			es used at your facility	to reduce pathogens in sewage sludge:				
				 					
				······································					

ar C	TY NAME AND PERMIT NUMBER: Creek WWTP IL0021971	Form Approved 1/14/99 OMB Number 2040-0080	
c.	Which vector attraction reduction option is met for the sewage sludge a	your facility?	
	Option 1 (Minimum 38 percent reduction in volatile solids)		
	Option 2 (Anaerobic process, with bench-scale demonstration		
	Option 3 (Aerobic process, with bench-scale demonstration)		
	Option 4 (Specific oxygen uptake rate for aerobically digested	sludge)	
	Option 5 (Aerobic processes plus raised temperature)		
	Option 6 (Raise pH to 12 and retain at 11.5)		
	Option 7 (75 percent solids with no unstabilized solids)		
	Option 8 (90 percent solids with unstabilized solids) Option 9 (Injection below land surface)		
	Option 10 (Incorporation into soil within 6 hours)		
	Option 11 (Covering active sewage sludge unit daily)		
	None or unknown		
d.	Describe, on this form or another sheet of paper, any treatment process sewage sludge:	es used at your facility to reduce vector attraction properties o	
pol	wage Sludge Sent to Other Facilities. Does the sewage sludge from your lutant concentrations, Class A pathogen requirements, and one of the vectors, go to question 8 (Certification).		
If y	Illutant concentrations, Class A pathogen requirements, and one of the vec Yes No res, go to question 8 (Certification). no, is sewage sludge from your facility provided to another facility for Yes No	tor attraction options 1-8?	
If y	Illutant concentrations, Class A pathogen requirements, and one of the vec YesNo Yes, go to question 8 (Certification). No, is sewage sludge from your facility provided to another facility for	tor attraction options 1-8?	
If y If n	Illutant concentrations, Class A pathogen requirements, and one of the vec Yes No res, go to question 8 (Certification). no, is sewage sludge from your facility provided to another facility for Yes No	tor attraction options 1-8? treatment, distribution, use, or disposal?	
If y If n	Illutant concentrations, Class A pathogen requirements, and one of the vectors, yesNo res, go to question 8 (Certification). no, is sewage sludge from your facility provided to another facility forYesNo no, go to question 7 (Use and Disposal Sites).	tor attraction options 1-8? treatment, distribution, use, or disposal?	
If y If n If n	Illutant concentrations, Class A pathogen requirements, and one of the vectors, yes No res, go to question 8 (Certification). no, is sewage sludge from your facility provided to another facility for Yes No no, go to question 7 (Use and Disposal Sites). res, provide the following information for the facility receiving the sex	tor attraction options 1-8? treatment, distribution, use, or disposal?	
If y If n If y a.	Illutant concentrations, Class A pathogen requirements, and one of the vec- Yes No res, go to question 8 (Certification). no, is sewage sludge from your facility provided to another facility for Yes No no, go to question 7 (Use and Disposal Sites). res, provide the following information for the facility receiving the several provided to another facility receiving the several provided to another facility for the facility receiving the several provided to another facility for the facility receiving the several provided to another facility for the facility receiving the several provided to another facility for the facility receiving the several provided to another facility for the facility receiving the several provided to another facility for the facility receiving the several provided to another facility for the facility receiving the several provided to another facility for the facility receiving the several provided to another facility for the facility receiving the several provided to another facility for the facility receiving the several provided to another facility for the facility receiving the several provided to another facility for the facility receiving the several provided to another facility for the facility receiving the several provided to another facility for the facility receiving the several provided to another facility for the facility receiving the several provided to another facility for the facility receiving the several provided to another facility for the facility facilit	tor attraction options 1-8? treatment, distribution, use, or disposal? vage sludge:	
If y If n If y a. b.	Illutant concentrations, Class A pathogen requirements, and one of the vec Yes No res, go to question 8 (Certification). no, is sewage sludge from your facility provided to another facility for Yes No no, go to question 7 (Use and Disposal Sites). res, provide the following information for the facility receiving the sex Facility name Mailing address	tor attraction options 1-8? treatment, distribution, use, or disposal? vage sludge:	
If y If n If y a. b.	Illutant concentrations, Class A pathogen requirements, and one of the vec- Yes No Yes, go to question 8 (Certification). To, is sewage sludge from your facility provided to another facility for Yes No To, go to question 7 (Use and Disposal Sites). Tes, provide the following information for the facility receiving the sex Facility name Mailing address Contact person	tor attraction options 1-8? treatment, distribution, use, or disposal? vage sludge:	
If y If n If y a. b.	Illutant concentrations, Class A pathogen requirements, and one of the vectors, yes No res, go to question 8 (Certification). no, is sewage sludge from your facility provided to another facility for yes No no, go to question 7 (Use and Disposal Sites). res, provide the following information for the facility receiving the sex facility name Mailing address Contact person Title	treatment, distribution, use, or disposal?	
If y If n If y a. c.	Illutant concentrations, Class A pathogen requirements, and one of the vec YesNo res, go to question 8 (Certification). no, is sewage sludge from your facility provided to another facility for YesNo no, go to question 7 (Use and Disposal Sites). res, provide the following information for the facility receiving the sex Facility name Mailing address Contact person Title Telephone number	treatment, distribution, use, or disposal? vage sludge:	
If y If n If y a. c.	Illutant concentrations, Class A pathogen requirements, and one of the vectors and yes No res, go to question 8 (Certification). no, is sewage sludge from your facility provided to another facility for Yes No no, go to question 7 (Use and Disposal Sites). res, provide the following information for the facility receiving the sex facility name Mailing address Contact person Title Telephone number Which activities does the receiving facility provide? (Check all that apply)	treatment, distribution, use, or disposal? vage sludge:	
If y If n If y a. c.	Illutant concentrations, Class A pathogen requirements, and one of the vectors are specified to another facility for res, go to question 8 (Certification). Ino, is sewage sludge from your facility provided to another facility for yes No Ino, go to question 7 (Use and Disposal Sites). In provide the following information for the facility receiving the sext section of the facility name Mailing address Contact person Title Telephone number Which activities does the receiving facility provide? (Check all that apply Treatment or blending Sale or give-away in basis and the provide of the prov	treatment, distribution, use, or disposal? vage sludge:	

1		TY NAME AND PERMIT NUMB Creek WWTP IL0021971	ER:	Form Approved 1/14/99 OMB Number 2040-0086		
7.	'. Use and Disposal Sites. Provide the following information for each site on which sewage sludge from this facility is used or dis					
	a.	Site name or number				
	b.	Contact person				
		Title				
		Telephone				
	c.	Site location (Complete 1 or 2	2)			
		1. Street or Route #				
		County				
		City or Town	State	Zip		
		2. Latitude	Longitude			
	d.	Site type (Check all that apply)			
				Forest		
		Surface disposal		Incineration		
		Reclamation	Municipal Solid Waste Landfill	Other (describe):		
8.	Cet	rtification. Sign the certification	statement below. (Refer to instructions	to determine who is an officer for purpose	s of this certification.)	
	sys or p kno	tem designed to assure that qua persons who manage the system	ilified personnel properly gather and eval n or those persons directly responsible fo e, and complete. I am aware that there a	epared under my direction or supervision i uate the information submitted. Based on r gathering the information, the informatior ire significant penalties for submitting false	my inquiry of the person is, to the best of my	

SEND COMPLETED FORMS TO:

Name and official title

Telephone number

Signature

Date signed

Sugar Creek WWTP IL0021971

Form Approved 1/14/99 OMB Number 2040-0086

PART 2: PERMIT APPLICATION INFORMATION

Complete this part if you have an effective NPDES permit or have been directed by the permitting authority to submit a full permit application at this time. In other words, complete this part if your facility has, or is applying for, an NPDES permit.

For purposes of this form, the term "you" refers to the applicant. "This facility" and "your facility" refer to the facility for which application information is submitted.

APPLICATION OVERVIEW — SEWAGE SLUDGE USE OR DISPOSAL INFORMATION

Part 2 is divided into five sections (A-E). Section A pertains to all applicants. The applicability of Sections B, C, D, and E depends on your facility's sewage sludge use or disposal practices. The information provided on this page indicates which sections of Part 2 to fill out.

1. SECTION A: GENERAL INFORMATION.

Section A must be completed by all applicants

2. SECTION B: GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE.

Section B must be completed by applicants who either:

- 1) Generate sewage sludge, or
- 2) Derive a material from sewage sludge.
- 3. SECTION C: LAND APPLICATION OF BULK SEWAGE SLUDGE.

Section C must be completed by applicants who either:

- 1) Apply sewage to the land, or
- 2) Generate sewage sludge which is applied to the land by others.

NOTE: Applicants who meet either or both of the two above criteria are exempted from this requirement if <u>all</u> sewage sludge from their facility falls into one of the following three categories:

- 1) The sewage sludge from this facility meets the ceiling and pollutant concentrations, Class A pathogen reduction requirements, and one of vector attraction reduction options 1-8, as identified in the instructions, or
- 2) The sewage sludge from this facility is placed in a bag or other container for sale or give-away for application to the land, or
- 3) The sewage sludge from this facility is sent to another facility for treatment or blending.
- 4. SECTION D: SURFACE DISPOSAL

Section D must be completed by applicants who own or operate a surface disposal site.

5. SECTION E: INCINERATION

Section E must be completed by applicants who own or operate a sewage sludge incinerator.

Form	Approve	d 1/14/99
OMB	Number	2040-0086

FACILITY NAME AND PERMIT NUMBER:

Sugar Creek WWTP IL0021971

A.	GE	NERAL INFORMATION		
All	appli	cants must complete this section	1.	
A.1.	Fac	ility Information.		
	a.	Facility name	Sugar Creek WWTP	
	b.	Mailing Address	3000 North Eighth Street Springfield, IL 62707	
	c.	Contact person	Jeff W. Slead	
		Title	Operations Supervisor	
		Telephone number	(217) 528-0491	
	d.	Facility Address (not P.O. Box)	3300 Mechanisburg Road Springfield, IL 62707	
	e.	Is this facility a Class I sludge man	nagement facility?YesNo	
	f.	Facility design flow rate: 10.00	mgd	
	g.	Total population served: 41,00	00.00	
	h.	Indicate the type of facility:		
		Publicly owned treatment Federally owned treatment Surface disposal site Other (describe)		
A.2.	App	licant Information. If the applican	it is different from the above, provide the following:	
	a.	Applicant name		
	b.	Mailing Address		
	C.	Contact person		
		Title Telephone number		
	d.	Is the applicant the owner or opera		
	e.	Should correspondence regarding facility applic	this permit should be directed to the facility or the applicant.	

	FACILITY NAME AND PERMIT NUMBER: Sugar Creek WWTP IL0021971			Form Approved 1/14/99 OMB Number 2040-0086
A.3.	Per a.	mit Information. Facility's NPDES permit number (if ap	pplicable): IL-0021971	
	b.	List, on this form or an attachment, all this facility's sewage sludge managem		mits or construction approvals received or applied for that regulate
		•	rpe of Permit urface Disposal	
A.4.	Cou	intry?		, or disposal of sewage sludge from this facility occur in Indian
A.5.		ographic Map. Provide a topographic wing information. Map(s) should includ		map(s) if a topographic map is unavailable) that show the perty boundaries of the facility:
	a.	Location of all sewage sludge manage	ement facilities, including locations	where sewage sludge is stored, treated, or disposed.
	b.	Location of all wells, springs, and othe the facility property boundaries.	r surface water bodies, listed in pu	blic records or otherwise known to the applicant within 1/4 mile of
	term		used for collecting, dewatering, stor	tifies all sewage sludge processes that will be employed during the ing, or treating sewage sludge, the destination(s) of all liquids and tor attraction reduction.
		-		all Process Flow Diagram included in Part 2A
A.7.	Con	tractor Information.		
		any operational or maintenance aspect ractor?Yes	s of this facility related to sewage s No	ludge generation, treatment, use or disposal the responsibility of a
	if ye	s, provide the following for each contrac	ctor (attach additional pages if nece	essary):
	а.	Name		
	b.	Mailing Address		
	c.	Telephone Number		
	d.	Responsibilities of contractor		

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г,	м	UIL	_1 1 1	N.	AIVI C	AND	PERMI	NUMBER:

Sugar Creek WWTP IL0021971

Form Approved 1/14/99 OMB Number 2040-0086

A.8. Pollution Concentrations: Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants for which limits in sewage sludge have been established in 40 CFR Part 503 for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old.

POLLUTANT	CONCENTRATION (mg/kg dry weight)	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
ARSENIC	2.70	3113B	<1 mg/kg
CADMIUM	0.50	3113B	<0.2 mg/kg
CHROMIUM	21.00	3113B	<1 mg/kg
COPPER	353.00	3113B	<5mg/kg
LEAD	151.00	3113B	<1 mg/kg
MERCURY	0.47	3112B	<0.2 mg/kg
MOLYBDENUM	10.00	3113B	<1 mg/kg
NICKEL	28.00	3111B	<0.5 mg/kg
SELENIUM	15.00	3113B	<0.2 mg/kg
ZINC	428.00	3111B	<2 mg/kg

A.9. Certification. Read and submit the following certifica	ition statement with this application. Refer to the instructions to determine who is an officer
for purposes of this certification. Indicate which parts	of Form 2S you have completed and are submitting:
	<u>.</u>
Part 1 Limited Background Information p	packet Part 2 Permit Application Information packet:

Section A (General Information)

Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)

Section C (Land Application of Bulk Sewage Sludge)

Section D (Surface Disposal)

Section E (Incineration)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with the system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title

Jeff W. Slead, Operations Supervisor

Signature

Telephone number

(217) 528-0491

Upon request of the permitting authority, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

Form Approve	d 1/14/99
OMR Number	2040-008

FACILITY NAME AND PERMIT NUMBER:

Sugar Creek WWTP IL0021971

B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF

		MATERIAL DERIVED FROM SEWAGE SLUDGE				
Coi	nple	e this section if your facility generates sewage sludge or derives a material from sewage sludge.				
B.1	1. Amount Generated On Site. Total dry metric tons per 365-day period generated at your facility: 834.00 dry metric tons					
folio		ount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use, or disposal, provide the owing information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach itional pages as necessary.				
	a.	Facility name				
	b.	Mailing Address				
	C.	Contact person				
		Title				
		Telephone number				
	d.	Facility Address (not P.O. Box)				
	e. f.	Total dry metric tons per 365-day period received from this facility: dry metric tons Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics.				
B.3.		atment Provided At Your Facility.				
	a.	Which class of pathogen reduction is achieved for the sewage sludge at your facility? Class A Class B Neither or unknown				
	b.	Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: Alternate #2 - #5 Lime is added to raise pH to 12 for 2 hour contact time.				
	C.	Which vector attraction reduction option is met for the sewage sludge at your facility?				
		Option 1 (Minimum 38 percent reduction in volatile solids) Option 2 (Anaerobic process, with bench-scale demonstration) Option 3 (Aerobic process, with bench-scale demonstration) Option 4 (Specific oxygen uptake rate for aerobically digested sludge) Option 5 (Aerobic processes plus raised temperature) ✓ Option 6 (Raise pH to 12 and retain at 11.5) Option 7 (75 percent solids with no unstabilized solids)				
		Option 8 (90 percent solids with unstabilized solids) None or unknown				

FACILITY NAME AND PERMIT NUMBER:					oved 1/14/99 ber 2040-0086			
Sug	ar C	reek WWTP IL0021971		OMB Num	Der 2040-0066			
В.3	. Tre	atment Provided At Your Fac	cility. (con't)					
	ď.	Describe, on this form or and sewage sludge:	ther sheet of paper, any treatment processe	es used at your facility to reduce vector attraction	properties of			
		Aerobic sludge digestion	and lime stabilization - Option 6	and lime stabilization - Option 6				
	e.	Describe, on this form or and	ther sheet of paper, any other sewage sludg	ge treatment or blending activities not identified in	(a) - (d) above:			
con requ	cent	rations in Table 3 of §503.13, nents in § 503.33(b)(1)-(8) and	the Class A pathogen reduction require	encentrations in Table 1 of 40 CFR 503:13, the ments in §503:32(a), <u>and</u> one of the vector attr rage sludge from your facility does <u>not</u> meet a	action reduction			
B.4.		action Reduction Options 1-	8.	ons, Class A Pathogen Requirements, and Onsection that is applied to the land:				
	a. b.			rs for sale or give-away for application to the land				
		YesNo		,				
			ewage sludge in a bag or other container tion B.4.	for sale or give-away for land application. Si	ip this section if			
B.5.	Sale a.		0.00	d. g or other container at your facility for sale or giv	e-away for			
	b.	Attach, with this application, a container for application to the		y the sewage sludge being sold or given away in	a bag or other			
doe	s no	apply to sewage sludge sen	t directly to a land application or surface	er facility that provides treatment or blending disposal site. Skip this section if the sewag ne facility, attach additional pages as necessa	e sludge Is			
B.6.	Ship	oment Off Site for Treatment	or Blending.					
	a.	Receiving facility name						
	b.	Mailing address						
	c.	Contact person						
		Title	day Aspectage					
		Telephone number		1200				
	d.	Total dry metric tons per 365-	day period of sewage sludge provided to re	celving facility:				

	ry name and permit number: Creek WWTP IL0021971		oved 1/14/99 per 2040-0086
B.6. Sh	ipment Off Site for Treatment or Blending. (con't)		
e.	Does the receiving facility provide additional treatment to reduce pathog	ens in sewage sludge from your facility? Yes	No
	Which class of pathogen reduction is achieved for the sewage sludge at	the receiving facility?	
	Class A Class B Neither or un	ıknown	
	Describe, on this form or another sheet of paper, any treatment process sludge:	es used at the receiving facility to reduce pathoger	ns in sewage
f.	Does the receiving facility provide additional treatment to reduce vector aYesNo	attraction characteristics of the sewage sludge?	
	Which vector attraction reduction option is met for the sewage sludge at	the receiving facility?	
	Option 1 (Minimum 38 percent reduction in volatile solids) Option 2 (Anaerobic process, with bench-scale demonstration) Option 3 (Aerobic process, with bench-scale demonstration) Option 4 (Specific oxygen uptake rate for aerobically digested sl Option 5 (Aerobic processes plus raised temperature) Option 6 (Raise pH to 12 and retain at 11.5) Option 7 (75 percent solids with no unstabilized solids) Option 8 (90 percent solids with unstabilized solids) None	udge)	
	Describe, on this form or another sheet of paper, any treatment processe properties of sewage sludge.	es used at the receiving facility to reduce vector at	traction
g.	Does the receiving facility provide any additional treatment or blending a	ctivities not identified in (c) or (d) above?	Yes No
	If yes, describe, on this form or another sheet of paper, the treatment or	blending activities not identified in (c) or (d) above	:
h.	If you answered yes to (e), (f), or (g), attach a copy of any information yo necessary information" requirement of 40 CFR 503.12(g).	u provide the receiving facility to comply with the "	'notice and
i.	Does the receiving facility place sewage sludge from your facility in a bag land?YesNo	g or other container for sale or give-away for appli-	cation to the
	If yes, provide a copy of all labels or notices that accompany the product		The state of the s
Complet	e Section B.7 if sewage sludge from your facility is applied to the lan Section B.4 (it meets Table 1 ceiling concentrations, Table 3 polluta vector attraction reduction options 1-8); or Section B.5 (you place it in a bag or other container for sale or give- Section B.6 (you send it to another facility for treatment or blending	nt concentrations, Class A pathogen requirem -away for application to the land); <u>or</u>	ents, and one of
B.7. Lan	d Application of Bulk Sewage Sludge.		
а	Total dry metric tons per 365-day period of sewage sludge applied to all	land application sites: dry met	ric tons

	TY NAME AND PERMIT NUMB Creek WWTP IL0021971	ER:		opproved 1/14/99 Tumber 2040-0086
B.7. La	nd Application of Bulk Sewag	e Sludge. (con't)		-
b.	Do you identify all land applic	ation sites in Section C of this application?	YesNo	
	If no, submit a copy of the lan	d application plan with application (see ins	ructions).	
C.	Are any land application sites sludge?Yes		re you generate sewage sludge or derive a ma	aterial from sewage
	If yes, describe, on this form of sites are located. Provide a continuous sites are located.		e permitting authority for the States where the	land application
Comple	te Section B.8 if sewage slud	ge from your facility is placed on a surfa	ce disposal site.	es -
B.8. Su	rface Disposal.		90	4.00
a.	Total dry metric tons of sewag	e sludge from your facility placed on all su	rface disposal sites per 365-day period:834	4.00 dry metric tons
b.	Do you own or operate all sur	face disposal sites to which you send sewa	ge sludge for disposal?	
		8.f for each surface disposal site that you c e, attach additional pages as necessary.	o not own or operate. If you send sewage slu	dge to more than
C.	Site name or number			
d.	Contact person			
	Title			
	Telephone number			
	Contact is	Site owner	Site operator	
e.	Mailing address	one owner		
f.	Total dry metric tons of sewag	e sludge from your facility placed on this s	urface disposal site per 365-day period:	dry metric tons
Comple	te Section B.9 if sewage sludg	je from your facility is fired in a sewage	sludge Incinerator.	
B.9. Inc	ineration.			
a.	Total dry metric tons of sewag	e sludge from your facility fired in all sewa	ge sludge incinerators per 365-day period:	dry metric tons
b.	Do you own or operate all sew	rage sludge incinerators in which sewage s	sludge from your facility is fired?Ye	s No
		3.9.f for each sewage sludge incinerator th incinerator, attach additional pages as neo	at you do not own or operate. If you send sev essary.	vage sludge to more
c.	Incinerator name or number:			
d.	Contact person:			
	Title:			
	Telephone number:			
	Contact is:	Incinerator owner	Incinerator operator	

FACILIT	Y NA	ME AND PERMIT NUMBE	R:			m Approved 1/14/99 B Number 2040-0086
Sugar C	reek	WWTP IL0021971			OM	B Number 2040-0088
B.9. Inc	inera	tion. (con't)				-
e.	Mai	ling address:				
		-			<u> </u>	
						j
f.	Tota	al dry metric tons of sewage	sludge from your facility fired in this sew	age sludge inciner	ator per 365-day period:	dry metric tons
Comple	te Se	ction B.10 if sewage sludg	ge from this facility is placed on a mun	icipal solid waste	landfill.	
B.10.	slud		Waste Landfill. Provide the following in ed. If sewage sludge is placed on more to			
	a.	Name of landfill				
	b.	Contact person				
		Title				
		Telephone number				
		Contact is	Landfill owner	Landfill oper	ator	
	C.	Mailing address				
		-		·		
			1.00			
	đ.	Location of municipal solid				
		Street or Route #				
		County _				
		City or Town _	Sta	te	Zip	
	e.	Total dry metric tons of sev	wage sludge from your facility placed in the	nis municipal solid	waste landfill per 365-da	v period:
	•				,	
			dry metric tons			
	f.	List, on this form or an atta municipal solid waste land	chment, the numbers of all other Federal fill.	i, State, and local _l	permits that regulate the	operation of this
		Permit Number	Type of Permit			
				-		
				_		
				_		
	g.		n, information to determine whether the s pal solid waste landfill (e.g., results of pai			ents for disposal of
	h.	Does the municipal solid w	raste landfill comply with applicable criteri	a set forth in 40 C	FR Part 258?	
		YesN	0			

FACILITY NAME AND PERMIT NUMBER:

Sugar Creek WWTP IL0021971

Form Approved 1/14/99 OMB Number 2040-0086

C. LAND APPLICATION OF BULK SEWAGE SLUDGE

Complete Section C for sewage sludge that is applied to the land, unless any of the following conditions apply:

- The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen
 requirements, and one of vector attraction reduction options 1-8 (fill out B.4 Instead); or
- . The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 Instead); or

2.1. Identification of Land Application Site. a. Site name or number b. Site location (Complete 1 and 2). 1. Street or Route #	• Comple	长 款额数		ge sludge to another facility for treatment or blending (fill out B.6 Instead). Ite on which the sewage sludge that you reported in Section B.7 is applied.	
1. Street or Route # County City or Town State Zip 2. Latitude Longitude Method of latitude/longitude determination USGS map Field survey Other c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location. 2.2. Owner Information. a. Are you the owner of this land application site? Yes No b. If no, provide the following information about the owner: Name Telephone number Mailing Address 2.3. Applier Information. a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? Yes No b. If no, provide the following information for the person who applies: Name Telephone number Mailing Address 2.4. Site Type: Identify the type of land application site from among the following Agricultural land Forest Public contact site				lication Site.	
City or Town 2. Latitude Longitude Method of latitude/longitude determination USGS map Field survey Other c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location. 2. Owner Information. a. Are you the owner of this land application site? Yes No b. If no, provide the following information about the owner: Name Telephone number Mailing Address 2.3. Applier Information. a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? Yes No b. If no, provide the following information for the person who applies: Name Yes No 2.4. Site Type: Identify the type of land application site from among the following. Agricultural land Forest Public contact site	b.				
2. Latitude Longitude Method of latitude/longitude determination USGS map Field survey Other c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location. 2. Owner Information. a. Are you the owner of this land application site? Yes No b. If no, provide the following information about the owner: Name Telephone number Mailing Address 2.3. Applier Information. a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? Yes No b. If no, provide the following information for the person who applies: Name Telephone number Mailing Address 4.4. Site Type: Identify the type of land application site from among the following. Agricultural land Forest Public contact site			County	·	
Method of latitude/longitude determination USGS mapField surveyOther c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location. 2. Owner Information. a. Are you the owner of this land application site? Yes No b. If no, provide the following information about the owner: Name Telephone number Mailing Address 2.3. Applier Information. a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? Yes No b. If no, provide the following information for the person who applies: Name Telephone number Mailing Address 4.4. Site Type: Identify the type of land application site from among the following. Agricultural land Forest Public contact site			City or Town	State Zip	
USGS mapField surveyOther c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location. 2. Owner Information. a. Are you the owner of this land application site? No b. If no, provide the following information about the owner: Name Telephone number Mailing Address 2.3. Applier Information. a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? YesNo b. If no, provide the following information for the person who applies: Name Telephone number Mailing Address 2.4. Site Type: Identify the type of land application site from among the following. Agricultural land Forest Public contact site		2.	Latitude	Longitude	
c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location. 2. Owner Information. a. Are you the owner of this land application site? Yes No b. If no, provide the following information about the owner: Name Telephone number Mailing Address 2.3. Applier Information. a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? Yes No b. If no, provide the following information for the person who applies: Name Telephone number Mailing Address 2.4. Site Type: Identify the type of land application site from among the following. Agricultural land Forest Public contact site			Method of latitude/lo	/longitude determination	
2.2. Owner Information. a. Are you the owner of this land application site?YesNo b. If no, provide the following information about the owner: Name Telephone number Mailing Address 2.3. Applier Information. a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site?YesNo b. If no, provide the following information for the person who applies: Name Telephone number Mailing Address 2.4. Site Type: Identify the type of land application site from among the following. Agricultural land Forest Public contact site			USGS map	p Field survey Other	
a. Are you the owner of this land application site?	C.	Тор	ographic map. Provid	ide a topographic map (or other appropriate map if a topographic map is unavailable) that shows t	he site location.
Telephone number Mailing Address .3. Applier Information. a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? Yes No b. If no, provide the following information for the person who applies: Name Telephone number Mailing Address .4. Site Type: Identify the type of land application site from among the following. Agricultural land Forest Public contact site				is land application site?YesNo	
Telephone number Mailing Address C.3. Applier Information. a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? ———————————————————————————————————	b.	If no	, provide the following	ing information about the owner:	
Mailing Address C.3. Applier Information. a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? Yes No b. If no, provide the following information for the person who applies: Name Telephone number Mailing Address C.4. Site Type: Identify the type of land application site from among the following. Agricultural land Forest Public contact site		Nan	ne		
a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? YesNo b. If no, provide the following information for the person who applies: Name Telephone number Mailing Address 4.4. Site Type: Identify the type of land application site from among the following. Agricultural landForestPublic contact site		Tele	phone number		
a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site?		Mail	ing Address		
Name Telephone number Mailing Address Assite Type: Identify the type of land application site from among the following. Agricultural land Forest Public contact site		Are	you the person who		
Telephone number Mailing Address S.4. Site Type: Identify the type of land application site from among the following. Agricultural land Forest Public contact site	b.	lf no	, provide the followin	ing information for the person who applies:	
Mailing Address C.4. Site Type: Identify the type of land application site from among the following. Agricultural land Forest Public contact site		Nam	ne		
C.4. Site Type: Identify the type of land application site from among the following. Agricultural land Forest Public contact site		Tele	phone number		
Agricultural land Forest Public contact site		Mail	ing Address		
	.4. Site	Туре	e: Identify the type of	of land application site from among the following.	
					

		NAME AND PERMIT NUMBER: eek WWTP IL0021971	Form Approved 1/14/99 OMB Number 2040-0086			
C.5. C	Crop	or Other Vegetation Grown on Site.				
а	l. '	What type of crop or other vegetation is grown on this site?				
þ). '	What is the nitrogen requirement for this crop or vegetation?				
C.6. V	ecto	or Attraction Reduction.				
A 	re a	ny vector attraction reduction requirements met when sewage sludgeYesNo	e is applied to the land application site?			
lf	yes	, answer C.6.a and C.6.b;				
	á	a. Indicate which vector attraction reduction option is met:				
		Option 9 (Injection below land surface)				
		Option 10 (Incorporation into soil within 6 hours)				
	Í	 Describe, on this form or another sheet of paper, any treatment properties of sewage sludge: 	processes used at the land application site to reduce vector attraction			
Compl	lete	Question C.7 only if the sewage sludge applied to this site sinc	a July 20, 1993, is subject to the cumulative pollutant loading			
		_Rs) in 40 CFR 503.13(b)(2).				
		ulative Loadings and Remaining Allotments. Have you contacted the permitting authority in the State where the bu	ally severage studges subject to CDI Da will be applied to assertain			
a.		whether bulk sewage sludge subject to CPLRs has been applied to t				
	ŀ	If \underline{no} , sewage sludge subject to CPLRs may not be applied to this site	3.			
	ľ	f <u>yes,</u> provide the following information:				
		Permitting authority				
		Contact Person				
		Telephone number				
b.	. E	Based upon this inquiry, has bulk sewage sludge subject to CPLRs b	een applied to this site since July 20, 1993?			
	Į:	f no, skip C.7.c.				

	Y NAME AND PERMIT NUMBI reek WWTP IL0021971	R:	Form Approv OMB Numbe	
c.	•		s sending, or has sent, bulk sewage sludge to CPLF to this site, attach additional pages as necessary.	Rs to this site
	Facility name			
	Mailing Address			
	Contact person	· · · · · · · · · · · · · · · · · · ·		
	Title			
	Telephone number			

FACILITY NAME AND PERMIT NUMBER: Form Approved 1/14/99 OMB Number 2040-0086 Sugar Creek WWTP IL0021971 D. SURFACE DISPOSAL Complete this section if you own or operate a surface disposal site. Complete Sections D.1 - D.5 for each active sewage sludge unit. D.1. Information on Active Sewage Sludge Units. Sugar Creek WWTP Sludge Disposal Area a. Unit name or number: Unit location (Complete 1 and 2). 3300 mechanicsburg Road 1. Street or Route # Sangamon County State IL Springfield City or Town Longitude 89° 35' 16"W 2. Latitude 39° 47' 51"N Method of latitude/longitude determination: USGS map Field survey Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location. 834.00 dry metric tons Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period: 41,000.00 dry metric tons Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit: Does the active sewage sludge unit have a liner with a maximum hydraulic conductivity of 1×10^{-7} cm/sec? If yes, describe the liner (or attach a description): Does the active sewage sludge unit have a leachate collection system? If yes, describe the leachate collection system (or attach a description). Also describe the method used for leachate disposal and provide the numbers of any Federal, State, or local permit(s) for leachate disposal: Underdrain system covers entire 30 acres of disposal site to collect drainage which is pumped back to aeration system for treatment.

h. If you answered no to either D.1.f. or D.1.g., answer the following question:

Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site?

Yes _____ No

If yes, provide the actual distance in meters: 150.00

Provide the following information:

Remaining capacity of active sewage sludge unit, in dry metric tons: _______dry metric tons

Anticipated closure date for active sewage sludge unit, if known: (MM/DD/YYYY)

Provide, with this application, a copy of any closure plan that has been developed for this active sewage sludge unit.

	TY NAME AND PERMIT NUMBER: Creek WWTP IL0021971	Form Approved 1/14/99 OMB Number 2040-0086		
D.2. Se	ewage Sludge from Other Facilities. Is sewage sent to this active sewage	sludge unit from any facilities other than your facility?		
	yes, provide the following information for each such facility. If sewage sludgich facility, attach additional pages as necessary.	e is sent to this active sewage sludge unit from more than one		
a.	Facility name			
b.	Mailing Address			
C.	Contact person			
	Title			
	Telephone number			
d.	Which class of pathogen reduction is achieved before sewage sludge le	·		
e.	Describe, on this form or another sheet of paper, any treatment process	es used at the other facility to reduce pathogens in sewage sludge:		
f. g.	Which vector attraction reduction option is met for the sewage sludge at Option 1 (Minimum 38 percent reduction in volatile solids) Option 2 (Anaerobic process, with bench-scale demonstration) Option 3 (Aerobic process, with bench-scale demonstration) Option 4 (Specific oxygen uptake rate for aerobically digested s Option 5 (Aerobic processes plus raised temperature) Option 6 (Raise pH to 12 and retain at 11.5) Option 7 (75 percent solids with no unstabilized solids) Option 8 (90 percent solids with unstabilized solids) None or unknown Describe, on this form or another sheet of paper, any treatment process	udge)		
g.	properties of sewage sludge	as used at the receiving facility to reduce vector attraction		
h.	Describe, on this form or another sheet of paper, any other sewage slucidentified in (d) - (g) above:	ge treatment activities performed by the other facility that are not		
D. 3 . Ve	ctor Attraction Reduction			
a.	Which vector attraction option, if any, is met when sewage sludge is pla	ed on this active sewage sludge unit?		
	Option 9 (Injection below and surface)			
	Option 10 (Incorporation into soil within 6 hours)			
	Option 11 (Covering active sewage sludge unit daily)			

	TY NAME AND PERMIT NUMBER: Creek WWTP IL0021971	Form Approved 1/14/99 OMB Number 2040-0086						
D.3. Ve	ctor Attraction Reduction. (con't)							
b.	Describe, on this form or another sheet of paper, any treatment processes used at the active sewage sludge unit to reduce vector attraction properties of sewage sludge:							
	Option #6. Raise pH to 12.0 for 2 hours and retain at pH = 11.5	for 22 hours						
D.4. Gro	ound-Water Monitoring.							
a.	 Is ground-water monitoring currently conducted at this active sewage sludge unit, or are ground-water monitoring data otherwise available for this active sewage sludge unit? Yes No 							
	If yes, provide a copy of available ground-water monitoring data. Also, property depth to ground-water, and the ground-water monitoring procedures use							
	Map is provided showing well locations. Sampled quarterly. See	attached ground water analysis						
b.	Has a ground-water monitoring program been prepared for this active se	wage sludge unit? Yes No						
If y	es, submit a copy of the ground-water monitoring program with this permit	application.						
C.	Have you obtained a certification from a qualified ground-water scientist contaminated? Yes No	that the aquifer below the active sewage sludge unit has not been						
	If yes, submit a copy of the certification with this permit application.							
D.5. Site	e-Specific Limits. Are you seeking site-specific pollutant limits for the sev	age sludge placed on the active sewage sludge unit?						
	If yes, submit information to support the request for site-specific pollutant limits with this application.							

FACILITY NAME AND PERMIT NUMBER:

Sugar Creek WWTP IL0021971

Form Approved 1/14/99 OMB Number 2040-0086

Ε.	INC	INERATION		- · · · · · · · · · · · · · · · · · · ·		·
, fefero sel.	bi a Barr	te this section if you fire sew	age sludge in a sewa	age sludge incinerator.		
Cor	nplet	te this section once for each ncinerator, attach additional	incinerator in which	you fire sewage sludge. If y	ou fire sewage sludge in mo	ore than one sewage
E.1.	Inci	nerator Information.				
	a.	Incinerator name or number:	N/A			···
	b.	Incinerator location (Comple	te 1 and 2).			
		1. Street or Route #				<u> </u>
		County				
		City or Town		State	Zip	
		2. Latitude		itude		
						Other
		Method of latitude/longitude of	letermination:	USGS map	Field survey	Other
E.2.	Amo	ount Fired. Dry metric tons pe	r 365-day period of se	wage sludge fired in the sewa	nge sludge incinerator:	dry metric tons
F.3.	Ben	yllium NESHAP.				
		Is the sewage sludge fired in	this incinerator "berylli	um-containing waste," as defi	ned in 40 CFR Part 61.31? _	Yes No
		Submit, with this application, incinerated is beryllium-conta		•	taken that demonstrate wheth	er the sewage sludge
	b.				latest beryllium emission rate n rate limit for beryllium has be	
E.4.	Mer	cury NESHAP.				
	a.	How is compliance with the m	ercury NESHAP being	g demonstrated?		
		Stack testing (if check				
		Sewage sludge samp	ling (if checked, comp	plete E.4.c)		
	b.	If stack testing is conducted, s	submit the following in	formation with this application	ı:	
		A complete report of stack tes and will continue to meet, the	-		rating parameters indicating th	at the incinerator has met,
		Copies of mercury emission ra	ate tests for the two m	ost recent years in which test	ing was conducted.	
	C.	If sewage sludge sampling is ongoing incinerator operating rate limit.			e report of sewage sludge sar and will continue to meet the I	
E.5.	Disp	ersion Factor.				
	а.	Dispersion factor, in microgram	ms/cubic meter per gra	am/second:		
	b.	Name and type of dispersion i	model:			
	C.	Submit a copy of the modeling	gresults and supporting	ng documentation with this ap	plication.	

1		Y NAME AND PERMIT NUMBER: reek WWTP IL0021971 Form Approved 1/14/99 OMB Number 2040-0086
E.6.	Co a.	ntrol Efficiency. Control efficiency, in hundredths, for the following pollutants:
		Arsenic: Chromium: Nickel:
		Cadmium: Lead:
	b.	Submit a copy of the results or performance testing and supporting documentation (including testing dates) with this application.
E.7.	Ris	k Specific Concentration for Chromium.
	a.	Risk specific concentration (RSC) used for chromium, in micrograms per cubic meter:
	b.	Which basis was used to determine the RSC?
		Table 2 in 40 CFR 503.43
		Equation 6 in 40 CFR 503,43 (site-specific determination)
	c.	If Table 2 was used, identify the type of incinerator used as the basis:
		Fluidized bed with wet scrubber
		Fluidized bed with wet scrubber and wet electrostatic precipitator
		Other types with wet scrubber
		Other types with wet scrubber and wet electrostatic precipitator
	d.	If Equation 6 was used, provide the following:
		Decimal fraction of hexavalent chromium concentration to total chromium concentration in stack exit gas:
		Submit results of incinerator stack tests for hexavalent and total chromium concentrations, including date(s) of test, with this application.
E.8.	Inci	nerator Parameters
	a.	Do you monitor Total Hydrocarbons (THC) in the sewage sludge incinerator's exit gas? Yes No
		Do you monitor Carbon Monoxide (CO) in the sewage sludge incinerator's exit gas? Yes No
	b.	Incinerator type:
	c.	Incinerator stack height, in meters:
		Indicate whether value submitted is: Actual stack height Creditable stack height
E.9.	Peri	ormance Test Operating Parameters
	a.	Maximum Performance Test Combustion Temperature:
	b.	Performance test sewage sludge feed rate, in dry metric tons/day:
		indicate whether value submitted is:
		Average use Maximum design
		Submit, with this application, supporting documents describing how the feed rate was calculated

c. Submit, with this application, information documenting the performance test operating parameters for the air pollution control device(s) used for this sewage sludge incinerator.

1	Y NAME AND PERMIT NUMBER: reek WWTP IL0021971	Form Approved 1/14/99 OMB Number 2040-0086		
E.10.	Monitoring Equipment. List the equipment in place to monitor the following parameters: a. Total hydrocarbons or carbon monoxide: b. Percent oxygen: c. Moisture content: d. Combustion temperature: e. Other:			
E.11.	Air Pollution Control Equipment. Submit, with this application, a lis incinerator.			



CRAWFORD, MURPHY & TILLY, INC. CONSULTING ENGINEERS 2750 WEST WASHINGTON STREET SPRINGFIELD. ILLINOIS 62702 (217) 787-8050

July 12, 1993

Mr. Rick Cobb
Hydrogeology Section
Public Water Supply Division
Illinois Environmental Protection Agency
2200 Churchill Road
P.O. Box 19276
Springfield, Illinois 62794-9276

Dear Mr. Cobb:

RE: 93030-02-01

Springfield Metropolitan Sanitary District Class II Groundwater Classification Request

By submission of this report, Crawford, Murphy & Tilly, Inc. is requesting on behalf of the Springfield Metropolitan Sanitary District, that groundwater beneath the Spring and Sugar Creek Sludge Application Farms be classified as Class II according to the provisions of 35 I.A.C. section 620.220.

In support of this request, the attached report details the information gathered during a hydrogeologic study of the subject sites.

If you have any further questions or require additional information, please contact me at your earliest convenience.

Very truly yours,

CRAWFORD, MURPHY & TILLY, INC.

Allen O. Oertel Hydrogeologist

cm encl.

> SPRINGFIELD, ILLINOIS ST. LOUIS, MISSOURI AURORA, ILLINOIS

SPRINGFIELD METRO SANITARY DISTRICT PROPOSED

GROUNDWATER MONITORING PROGRAM

FOR COMPLIANCE WITH

40 CFR PART 503 - SLUDGE MANAGEMENT REGULATIONS

Prepared By:

CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
2750 WEST WASHINGTON STREET
SPRINGFIELD, ILLINOIS 62702

FEBRUARY 4, 1994

1.0 INTRODUCTION

The Springfield Metropolitan Sanitary District (SMSD) disposes of treated sewage sludge by land applying it to approximately 120 acres at three separate locations (farms). This practice was begun in 1975 and continues to this day. Groundwater monitoring was commenced in 1984 to evaluate the impact of sludge disposal on groundwater quality at the farms.

This report summarizes the results of the nitrate groundwater monitoring data collected since 1984, evaluates the impact of sludge disposal on groundwater and describes the methods the SMSD will use to determine compliance with existing ground water quality standards.

2.0 REGULATORY REQUIREMENTS

State and Federal programs have been established which regulate the potential impact of this operation on groundwater. The primary State program is administered by the Illinois Environmental Protection Agency (IEPA) under Title 35, Illinois Administrative Code, Part 620. These regulations establish four classifications of groundwater briefly described as follows:

Class I - Potable Resource Groundwater

Class II · · General Resource Groundwater

Class III -- Special Resource Groundwater

Class TV - Other Groundwater

No Class III or Class IV groundwaters have been established for these areas by the IEPA. A request was submitted to the IEPA on July 12, 1993 to classify groundwater at the

sludge application farms as Class II General, rather than Class I Potable Use. That request was approved in a letter from IEPA on July 21, 1993. This classification carries a nitrate level for Class II, general use groundwater of 100 parts per million (ppm). Had this request not been approved, the Class I Potable Use Standard of 10 ppm would have applied.

The primary Federal program regulating the impacts of this operation on groundwater is under Title 40 CFR, Part 503, Sludge Management Regulations. Specifically, these regulations state that land disposal of sludge shall not contaminate an aquifer. The term "contaminate an aquifer" is specifically defined as causing the maximum contaminant level (M.C.L.) for nitrates to exceed the limit set in 40 CFR 141.11 (10 ppm). For those areas where nitrates already exceed M.C.L.'s, land disposal may not cause those existing levels to increase.

3.0 DATA SELECTION AND ANALYSIS

While apparently straight-forward, the requirement that land application not increase nitrate levels brings up the question as to what actually constitutes an "increase" and what method will be used to determine that question.

3.1 Monitoring Locations

In consultation with USEPA personnel, several existing wells have been selected to monitor for this determination. Those wells are as follows:

Spring Creek West Farm	-	SP-2
-	-	SP-3
Spring Creek East Farm	-	SP-4
_	_	SP-5

All of these wells are in locations which have been determined to be in downgradient locations of their respective farms.

3.2 Background Data Analyses

Tables 1 and 2 present a summary of all data collected from these wells through 1993. Nine years of data are available at Spring Creek Farm and ten years of data are available at Sugar Creek Farm. A cursory review of this existing data shows drastic fluctuations in nitrate values which peaked in the late 1980's and have been in an overall decline since that time.

In USEPA's September 14, 1993 letter it was recommended that due to this remporal variation the most significant factor contributing to this variation should be identified. Specifically, the relationship between nitrate levels, precipitation and sludge application rates were recommended to be examined.

Figures 1 and 2 are plots of nitrate levels versus total annual rainfall in a typical downgradient well at Spring and Sugar Creek Farms, respectively. At both farms, the trends between groundwater nitrates and total annual rainfall appear to be inversely related. Time periods of decreasing rainfall appear to coincide with increasing nitrates and visa versa. Correlations between groundwater nitrates and sludge application rates are not as well defined. (Figures 3 and 4). For Spring Creek (Figure 3), there appears to be good correlation between increasing nitrates and sludge application rates up to a point. However, starting in 1990 sludge application rates have increased or held steady while groundwater nitrate levels have shown a steady decrease.

SPRINGFIELD METROPOLITAN SANITARY DISTRICT DOWNGRADIENT GROUND WATER NITRATE DATA SPRING CREEK PLANT

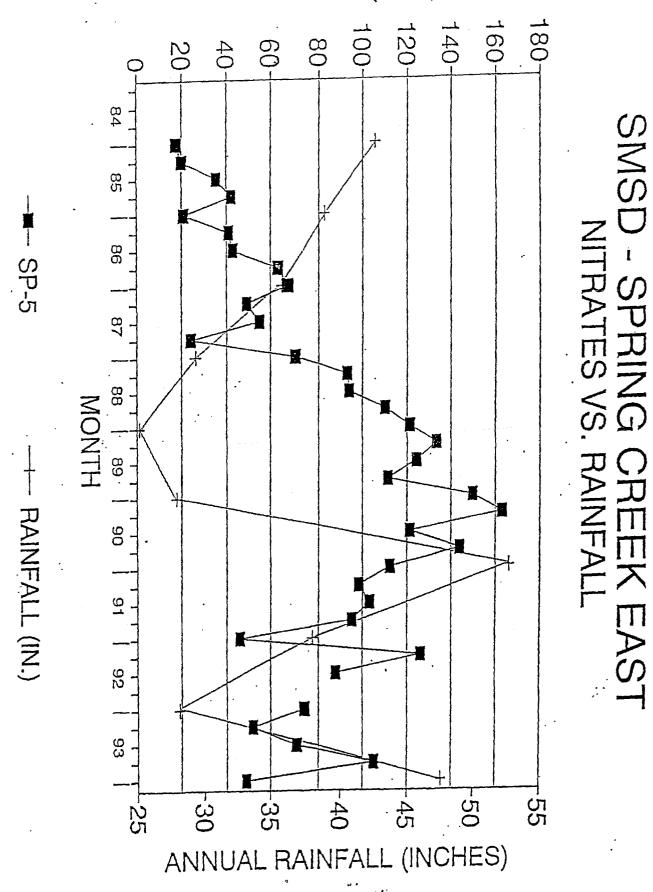
DATE	ļ	-,	WELL NU	MBER				
SAMPLED	SP-2	LOG	523	LCG	SP-4	tog .	SP-5	LOG
3/8-4								
6/84								
9/84								
12/84	1.5	0.273754	-40	1.60205	3.	7 0,563202	17.6	1.245513
3/85	1,4	0.146128,	70	1.845098	2	1,39794	20	1,30103
6/85 -	0,9	-0,04576	14	1.146128	2-	1,380211	35	1.544068
9/85	2.1	0.322219	8	0.90309	20	1.30103	42	1.623249
12/85	2.9	0.462398	20	1.30103	14	1,146128	21	1,322219
3/86	2,76	0.440909	24.2	1.383815	. 23,9	1.378398	40.9	1.611723
5/86	4.15	0.618048	29,5	1.471292	24	1.380211	42.8	1,631444
9/86		0.778151	18	1.255273	27	1.431364	63	1.799341
12/85	7.2	0.857332	36	1.556303	26	1.414973	67	1.826075
3/87	1.77	0.247973	20,7	1.31597	15,4	1.187521	49.5	1.694605
6/87	1.95	0.290035	17.2	1.235528	16.2	1.209515	55	1,740363
9/87	5.2	0.715003	20	1.30103	16	1.20412	24	1.380211
12/87	5.4	0.732394	76	1.880814	48	1.681241	70	1.845098
3/88	3	0.477121	37	1.558202	63	1.812913	93	1.968483
6/83	4	0.60206	47	1,672098	66	1.819544	94	1.973128
9/88	12.7	1.103804	50	1.59397	44	1.643453	110	2,041393
12/83	14	1.146123	67	1.825075	34	1.531479	121	2.082785
3/89	1.3	0.113943	56	1.748188	104	2.017033	133	2.123852
5/89	2,2	0.342423	24	1.380211	88	1.944483	124	2.093422
7/89	3.5	0.544068	16	1.20412	93	1.968483	111	2.045323
2/89	4,5	0.653213	14	1.146128	123	2.089905	150	2.176091
/90	4.5	0.653213	54	1.732394	132	2.120574	163	2.212188
/90	5	0.69897	38	1.579784	. 98	1.991226	121	2.082785
/90	6.9	0.838849	35	1.556303	91	1.959041	144	2,158362
2/90	0.8	-0.09691	14	1.146128	103	2.012837	112	2.049218
/91	1.1	0.041393	20	1.30103	94	1.973128	66	1,991226
/91	1.2	0.079181	21	1.322219	86	1.934498	103	2.012837
/91	1	0	21	1,322219	72	1.857332	95	1.977724
2/91	2 1	0.30103	6	0.778151	50	1.69897	46	1,562758
/92	3.4	0.531479	18	1.255273	83 /	1.919078	125	2.100371
92	7.9	0.897627	10.2	1,0066	96	1.982271	88	1.944483
92								
2/92	2.8	0.447158	5.1	0.78533	60	1.778151	75	1.869232
93	2.2	0.342423	6	0.778151	56	1.748188	52	1.715003
93	3.8	0.579764	7.3	3.861323	68	1,832509	71	1.851258
93	4.5	0.653213	75	1.8086.1	78	1.892095	105	2.021189
2/93	1.3 0	0.113943	25	1.447156	73	1,863323	49	1.690196
ח		35		38		36		36
EAN	(0.469686	1	.358519		1.668649	•	1.844701
ARIANCE	C	0,059194	c	101253		0.121568	(0.069012
1. (80)	C	2.558835		1,45767		1.777967	1	.906759
EAN(80)	3	3,621453	2	3.63599	;	59.97456	8	0.67874
MO. RUNNIN	IG MEAN							
mo, nomin	I - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	N		15		្វាទ		15
	u	EAN	^		,	.,. 1.250458	•	.904215
				.405423				.012335
		ARIENCE		103644	(1.125066		
		1.(80)		.501843	_	1,36842		.915782
	M	EAN (80)	3	175724	2	23.35715	8	2.37248

SPRINGFIELD METROPOLITAN SANITARY DISTRICT DOWNGRADIENT GROUND WATER NITRATE DATA SUGAR CREEK PLANT

	DATE		:WE	LLNUMBE	LNUMBER		
	SAMPLED	SU-3	LOG	SU-4	LOG		
	3/84	23	1.361728	67	1.826075		
	6/84	11.2	1.049218	72	1.857332		
	9/84	1.5	0.176091	72	1.857332		
	12/84	7.1	0.851258	74	1.869232		
	3/85	25	1.39794	74	1.869232		
	6/85	0.77	-0.11351	ಬ	1.919078		
	9/85	0.66	-0.18046	92	1.963788		
	12/85	25.88	1.412964	95	1.977724		
- [3/86	25.2	1.401401	90.8	1.957128		
	6/86	16.3	1.212188	101	2.004321		
	9/86	4.8	0.631241	. 110	2.041393		
	12/86	29	1.462398	103	2.012837		
[3/87	5.76	0.760422	55,7	1.745855		
Ŀ	6/87	0.93	-0.03152	59	1.770852		
[9/87	2.7	0.431364	102	2.0086		
Ŀ	12/87	37	1.568202	143	2.155336		
[3/88	13	1.113943	83	1.944483		
6	5/aa	2.5	0.414973	95	1.982271		
9	/88	10.4	1.017033	133	2.123852		
1	2/88	14.2	1.152288	147	2.167317		
[3	/89	0.6	-0.22185	113	2.071882		
6	/89	2.8	0.447158	145	2.161368		
9	/89	33.4	1.523746	129	2.11059		
1	2/89	1.8	0.255273	157	2.222716		
3	/90	13.4	1.127105	169	2.227887		
6	/90	5 .6	0.819544	147	2.167317		
9	/90	3.4	0.531479	129	2.11059		
1	2/90	1.4	0.146128		1.977724		
3	/91	0.8	-0.09691	72	1.857332		
6	/91	1	0		1.770852		
_	/91	5,0	-0.09691	83	1.919078		
_	2/91	1	0		1.778151		
3/	92	1.2	0.079181	73	1.863323		
6/	92	2.9	0.462398	72	1,857332		
9/	92						
12	2/92	3.9	0.591065		1.826075		
3/	93	1	0		1.556303		
6/	93		0.041393	32	1.50515		
9/	93	1.1	0.041393	55	1.748188		
12	2/93	0.5	-0.30103	23	1,361728		

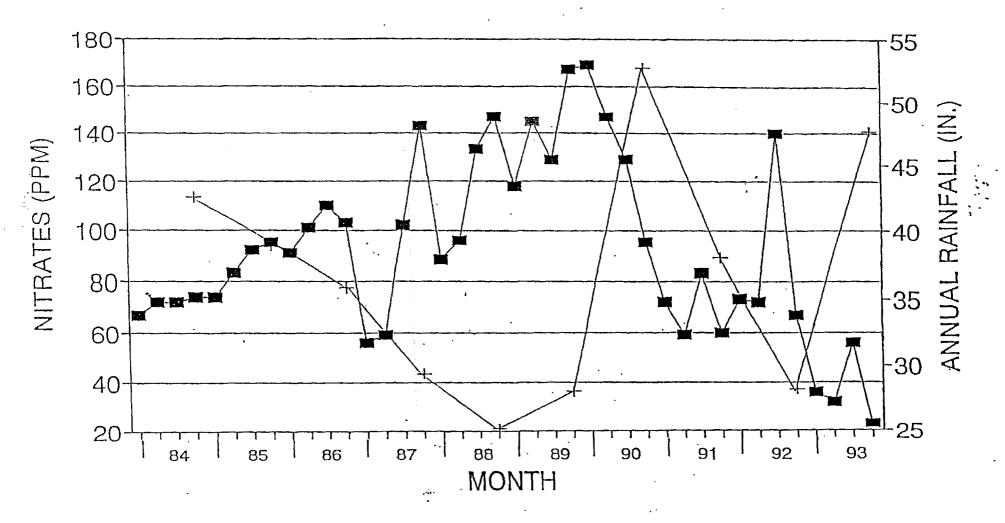
л	39	39
MEAN	0.575624	1.926862
VARIENCE	0.351044	0.036653
C.I.(80)	0.576524	1.925862
MEAN(80)	3.772454	84.50108
43 MO. RUNNING	S MEAN	
п	15	15
MEAN	0.222939	1.835135
VARIENCE	0.155375	C.C56815
C.I.(30)	CASSE O	1.838298
MEAN(80)	2.337992	77,32101

NITRATES (PPM)



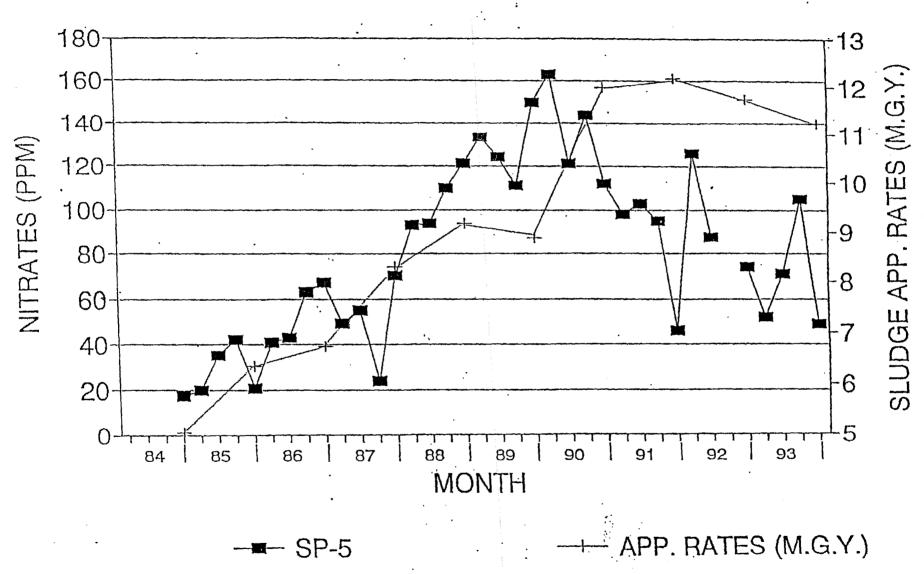
SMSD - SUGAR CREEK FIELD

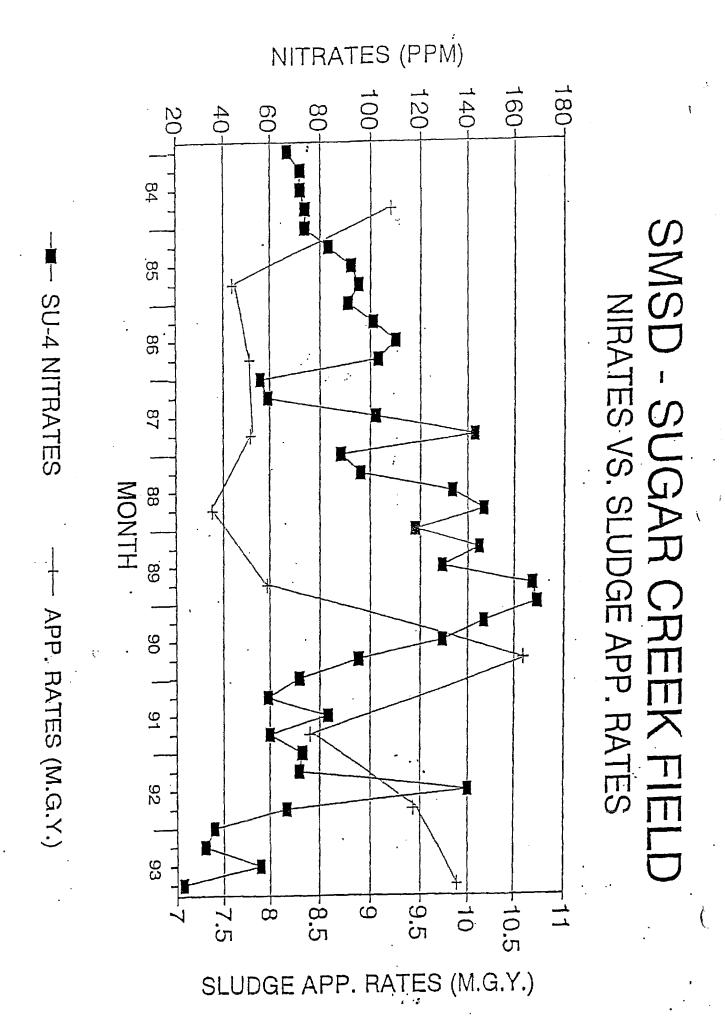
NIRATES VS. RAINFALL



--- SU-4 NITRATES --- RAINFALL (IN.)

SMSD - SPRING CREEK EAST NITRATES VS. SLUDGE APP. RATES





The conclusion is therefore reached that the amount of rainfall and hence, recharge to the aquifer, is a more important controlling factor in groundwater nitrates than the sludge application rates.

4.0 ESTABLISHMENT OF GROUNDWATER NITRATE LIMITS

In correspondence from the USEPA dated September 14, 1993 and January 25, 1994, limits were recommended on nitrates in the previously listed wells. They are as follows:

Spring Creek - West	SP-2	50.0 ррш
	SP-3	50.0 ppm
Spring Creek - East	SP-4	95.0 ppm
	SP-5	95.0 ppm
Sugar Creek	SU-3	15.0 ppm
	SU-4	100.0 ppm

To establish these recommended limits, USEPA made certain assumptions, primarily that the historical groundwater data is not, statistically, normally distributed. Before further statistical manipulation, all data was transformed to base ten logrithams to arrive at a more log normal distribution. Next, a statistical mean was established at an 80% confidence interval. After this limit was established, the agency added an additional percentage to the calculated statistical mean to account for the relatively low confidence limit (80%) used.

In subsequent discussions with the agency, the issue was discussed as to whether the recommended limit was a true "not-to-exceed" value or if some form of averaging could be used to determine compliance with the recommended limit. In a telephone conversation with USEPA on December 9, 1993, it was agreed that some type of averaging could be

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proposed to determine compliance with the recommended limits. The primary justification for averaging of data as opposed to using single points to determine compliance rests in the nature of the data itself. Even though data may exhibit an overall trend, one well's nitrate values can vary from quarter to quarter in response to very specific events. Even though one high nitrate value may occur, the overall trend of the data may still be unaffected. It was further agreed that the averaging method should be consistent with the methodology used to calculate the statistical mean values. The time over which the average would be calculated should also be tied to the nature of the data and those factors which influence groundwater nitrate values.

5.0 COMPLIANCE METHODOLOGY

This section proposes the method by which the SMSD will evaluate groundwater nitrate data and determine whether the overall quality is increasing or decreasing.

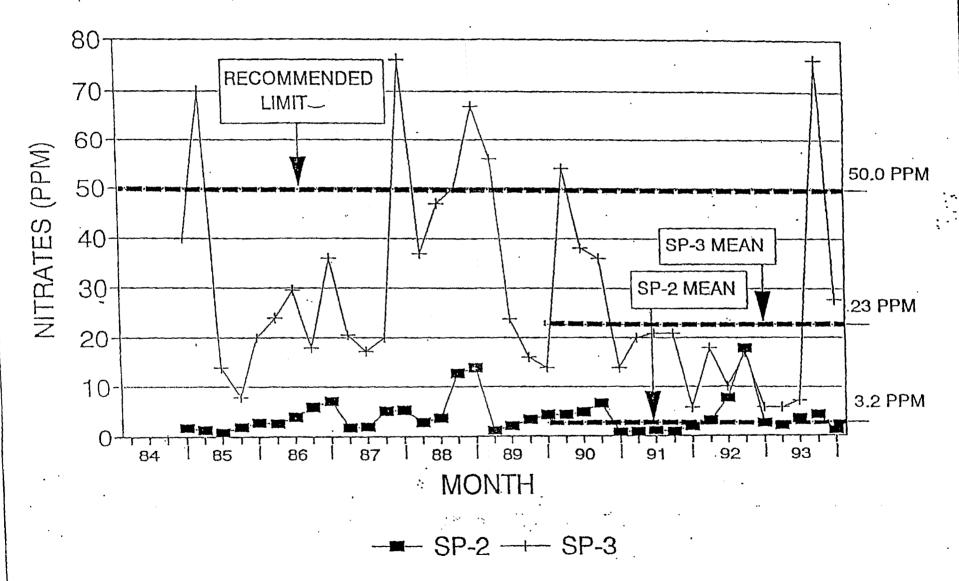
Figures 5, 6, 7 and 8 display graphs of groundwater nitrate values for all of the designated monitoring wells. Also shown on each graph is the recommended nitrate limit for the subject wells. Compliance will be evaluated by the following procedure:

- 1. Data from the last 4 years (16 quarters) will be converted to base 10 log values.
- 2. Arithmetic mean and sample variance (n-1) will be calculated for this data.
- 3. The upper confidence limit (U.C.L.) for the collected data set will be calculated at an 80% confidence level by the formula:

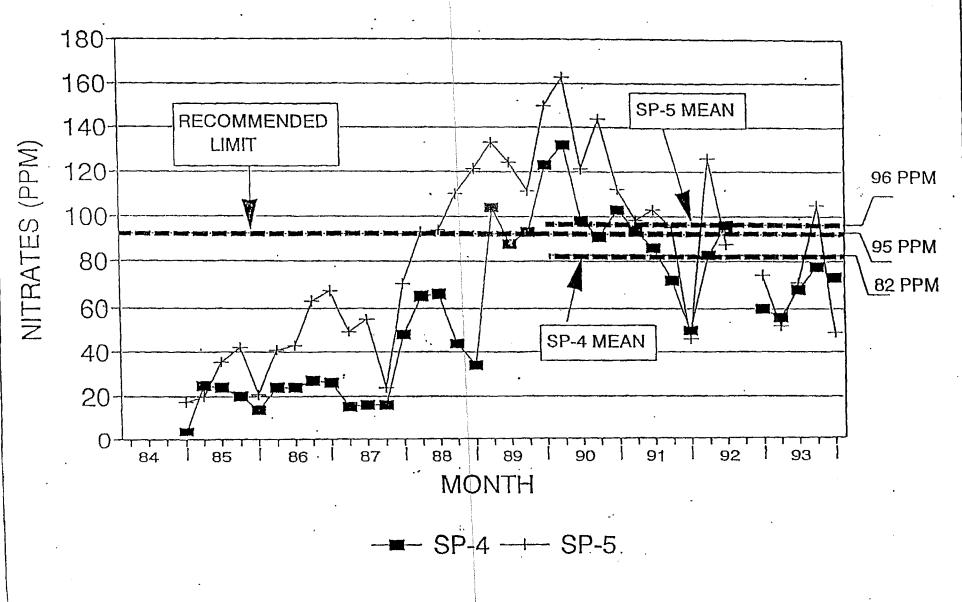
$$X + [(t_{50\%} (1+1/n)^{0.5} (S)]$$
= 1.9268 [i.303(1+1/39)^{0.5} (.03665)]

11

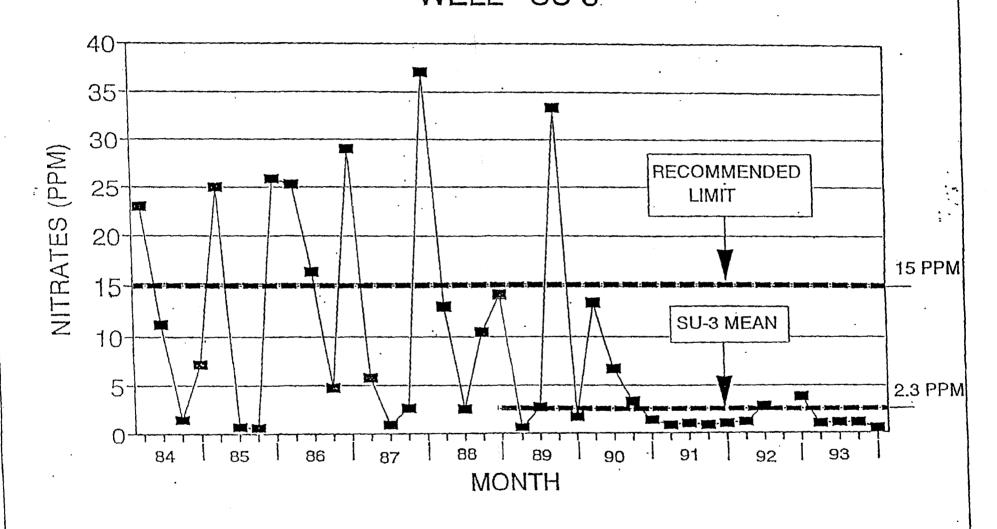
SMSD - SPRING CREEK WEST WELLS SP-2 AND SP-3



SMSD - SPRING CREEK EAST WELLS SP-4 AND SP-5

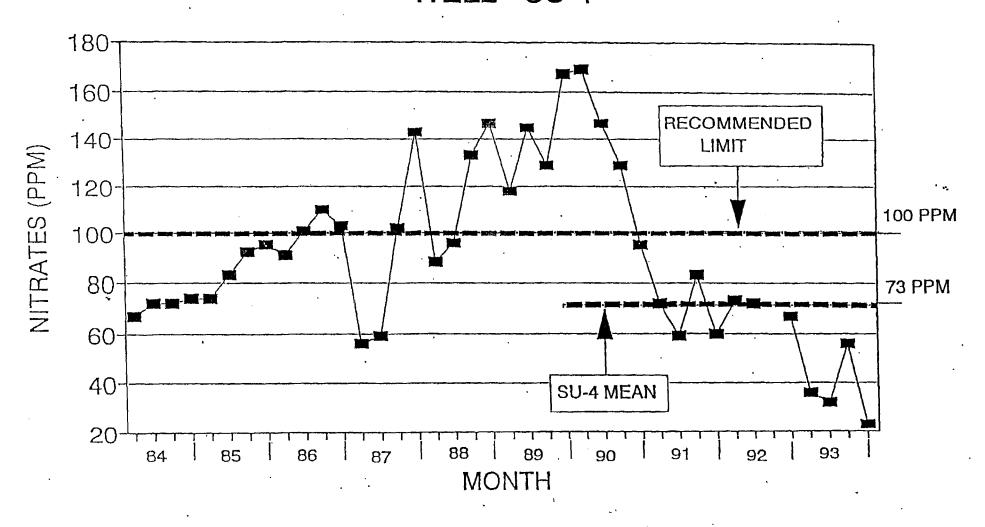


SMSD - SUGAR CREEK FIELD WELL - SU 3



---- SU-3 NITRATES

SMSD - SUGAR CREEK FIELD WELL - SU 4



---- SU-4 NITRATES

where:

X = arithmetic sample mean

t_{0.5} = "t" value for 80% confidence limit with "n" degrees of freedom

n = number of samples collected, and

s = sample variance (n-1)

4. Resultant U.C.L. values are then recalculated from log to arithmetic values.

Along with the recommended nitrate limits for each set of wells, Figures 5-8 also show the calculated nitrate averages for the last 48 months (16 quarters) of data, using the previously described method for each of the designated downgradient wells.

A 48 month time period was selected for averaging for the following reasons:

- 1. The 48 month interval coincides roughly with the latest observed period of low rainfall observed at both farms in the late 80's during which groundwater nitrate values also varied correspondingly.
- 2. A 48 month time interval will be less likely to allow a single anomalously high or low data point to inordinately alter the overall average data. This is important so that the SMSD can use this monitoring data as a long term method to plan for and mitigate potential problems rather than to react to a shorter, more potentially volatile time period.
- 3. No other, shorter trends (i.e. 12 or 24 months) are observed in the data upon which to base a rational interval.

4. Geologic conditions and existing area site uses at these sites are conducive to a longer monitoring period. If an area of sensitive groundwater conditions or users were present, then a much shorter time period (12 or 24 months) may be required in order to more quickly detect and mitigate adverse trends.

6.0 CONCLUSIONS

The proposed monitoring strategy provides a rational procedure to monitor groundwater quality for these sites. The strategy takes into account site specific hydrogeology, management practices and changing environmental conditions. In addition, the procedure allows for the SMSD to implement changes in management practices that may be required should nitrates trend upward.

Even though the SMSD believes this a rational and accurate methodology, it is still recognized that more accurate or reliable methods of determining compliance with nitrate standards may be developed in the future. If this is the case, the SMSD reserves the right to modify this plan to account for these new methods. In such case the USEPA will be contacted for their review and recommendations at that time.

93030-02 17

SPRINGFIELD METRO SANITARY DISTRICT

LOCATION: SUGAR CR	LOCATION: SUGAR CREEK PLANT				(REPORTED QUARTERLY)					
WELL NUMBER - SU-1 (GROUND ELEVATION: SAMPLE DATE: WATER ELEVATION:		ED 10/24/8 MAR. 11	3)	JUN. 16	* TO	WELL TY OP OF PIPE SEP. 14	_	UG VATION: 5 DEC 9	57.0	8 AVE.
WATER DEPTH (ft.): pH (UNITS)		6.	7 ·	6.	7	6.9	9	. 7.0)	6.8
HARDNESS (CaCO3)		45		600)	550)	700		575
ELECT. COND.		900	}	1510)	1480)	· 760		1163
CHLORIDE		250)	500		450	i	250		363
AMMONIA NITROGEN (N)		. 0.2		0.2		Ó.1	-	0.3		0.2
NITRATE (N)		0.7		1.1		2.1		1.0		1.2
							٠.			
ARSENIC	<	0.005	<	0.005	<	0.005	<	0.005	<	0.005
CADMIUM	. <	0.001	<	0.001	<	0.001	<	0.001	<	0.001
CHROMIUM	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01
COPPER		0.013	<	0.005		0.007		0.002	<	0.007
MANGANESE		1.62		1.65		1.04		1.08	٠	1.35
MERCURY	. <	0.0002	<	0.0002	<	0.0002	, <	0.0002	<	0.0002
MOLYBDENUM	<	Ó.01	<	0.01	<	0.01	<	0.01	<	0.01
NICKEL	٠	0.006	<	0.005		0.002	<	0.001	<	0.004
LEAD	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01
ZINC *WELL TYPE - UG (UP-GRAD)(ENT) - [0.09 DG (DOWN	< I-GR/	0.05 ADIENT)	<	0.05	<	0.05	<	0.06

NOTE: NEW WELL INSTALLED ON JULY 25, 1996

SPRINGFIELD METRO SANITARY DISTRICT

LOCATION: SUGAR CREEK PLANT

(REPORTED QUARTERLY)

WELL NUMBER - SU-2 (I GROUND ELEVATION:		ED 10/18/8:	3)		* T(WELL TY			0,33	l.
SAMPLE DATE: WATER ELEVATION: WATER DEPTH (ft.):		MAR. 11		JUN. 16	•	SEP. 14		DEC 9	<i>3,</i> 00	AVE.
pH (UNITS)		7.0).	7.1		7.1		. 7.2		7.1
HARDNESS (CaCO3)		420)	420	+	420		440		425
ELECT. COND.		610	}	690		700		710		678
CHLORIDE .		. 29	. •	39		30		51		37
AMMONIA NITROGEN (N)		0.9		0.6		1.1		1.0		0.9
NITRATE (N)		0.6		0.3	•	0.3		0.3		0.4
				-						
ARSENIC :	<	0.005	<	0.005	<	0.005	. <	0.005	<	0.005
CADMIUM	<	0.001	, <	0.001	<	0.001	<	0.001	<	0.001
CHROMIUM	<	0.01	< .	0.01	<	0.01	<	0.01	<	0.01
COPPER	<	0.002	<	0,005	<	0.002		0.002	<	0.003
MANGANESE		0.12		0.29		0.46		0.32		0.30
MERCURY	<	0.0002	<	0,0002	<	0.0002	<	0.0002	<	0.0002
MOLYBDENUM	< ·	0.01	<	0.01	<	0.01	<	0.01	<	0.01
NICKEL		0.002	<	0.005	<	0.001		0.002	<	0.003
LEAD	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01
ZINC *WELL TYPE - UG (UP-GRAI	DIENT) -	0.14 DG (DOWN	< I-GR	0.05 ADIENT)	<	0.05	<	0.05	<	0.07

SPRINGFIELD METRO SANITARY DISTRICT

LOCATION: SUGAR CREE	LOCATION: SUGAR CREEK PLANT				(REPORTED QUARTERLY)					
WELL NUMBER - SU-3 (IN		.ED 10/18/8	3)		*	WELL TY				
GROUND ELEVATION: 5 SAMPLE DATE: WATER ELEVATION: WATER DEPTH (ft.):	538.49	MAR. 11		JUN. 16	TC	OP OF PIPE SEP. 14	ELE	VATION: 5 DEC 9	40.46	AVE.
pH (UNITS)		7.	3	7.2	2	7.	3	7.3	}	7.3
HARDNESS (CaCO3)		400	0	460)	400	}	400	İ	415
ELECT. COND.		590)	640)	670)	650		638
CHLORIDE		3	}	2		2		15		6
AMMONIA NITROGEN (N)		. 3.1		1.2		1.6		2.2		2.0
NITRATE (N)		0.3		0.4		0.3		0.4		0.4
NITRATE (N) - 48 MO. AVE. USEPA 15mg/l, ILEPA 30mg	/I	0.4		0.4		0.4		0.4		0.4
ARSENIC	<	0.005	<	0.005	<	0.005	<	0.005	<	0.005
CADMIUM	<	0.001	<	0.001	<	0.001	<	0,001	<	0.001
CHROMIUM	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01
COPPER	<	0.002	<	0.005	<	0.002		0.020	<	0.007
MANGANESE		0.14		0.09		0.10		0.06		0.10
MERCURY	۲.	0.0002	<	0.0002	<	0.0002	<	0.0002	<	0.0002
MOLYBDENUM	<	. 0.01	<	0.01	<	0.01	<	0.01	<	0.01
NICKEL		0.002	<	0.005	<	0.001	<	0.001	<	0.002
LEAD	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01
ZÍNC *WELL TYPE - UG (UP-GRAD ALL RESULTS EXPRESSED A					< ED.	0.05	<	0.05	<	0.05

ELECTRICAL CONDUCTIVITY EXPRESSED AS MICROMHOS/CM.

2010

TABLE#6

MONITORING WELLS ANALYSIS

SPRINGFIELD METRO SANITARY DISTRICT

•											
LOCATION: SUGAR CREE	K PLAI	VT .		(REPO	RTE	QUARTER	LY)				
WELL NUMBER - SU-4 (IN GROUND ELEVATION: 5: SAMPLE DATE: WATER ELEVATION:		ED 10/18/83 MAR. 11)	JUN. 16	* TC	WELL TYP OP OF PIPE I SEP. 14		OG /ATION: 53 DEC 9	39.19	AVE.	
WATER DEPTH (ft.): pH (UNITS)		7.0		6.9		7.0		7.0		7.0	
HARDNESS (CaCO3)		1500		1500		1400		1600		1500	
ELECT. COND.		1500	•	1810		1680		1670		1665	
CHLORIDE		46		46		32		52		44	
AMMONIA NITROGEN (N)		0.5		0.2		3.7	<	0.1	<	1.1	
NITRATE (N)		52.0		40.0		34.0		30.0		39.0	
NITRATE (N) - 48 MO. AVE. USEPA 100mg/l, ILEPA 100m	ng/l	51.5 .		54.0	٠	56.1		58.0		54.9	
ARSENIC	<	0.005	<	0.005	<	0.005	<	0.005	<	0.005	
CADMIUM	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	
CHROMIUM .	<	0.01	<	0.01	<	0.01	<.	0.01	<	0.01	
COPPER	<	0.002		0.007		0.002		0.008	<	0.005	
MANGANESE		0,80		1.79		3.12		1.42		1.78	
MERCURY	<	0.0002	<	0.0002	<	0.0002	<	0.0002	<	0.0002	
MOLYBDENUM	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	
NICKEL		0.012		0.012		0.013		0.011		0.012	
LEAD	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	
ZINC	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	

SPRINGFIELD METRO SANITARY DISTRICT

LOCATION: SUGAR CRE	CATION: SUGAR CREEK PLANT				(REPORTED QUARTERLY)					
WELL NUMBER - SU-5 (GROUND ELEVATION: SAMPLE DATE: WATER ELEVATION: WATER DEPTH (ft.):	INSTALL 541.32	.ED 10/18/8 MAR. 11	3)	JUN. 16		* WELL TY TOP OF PIPE SEP. 14			543.3	9 AVE.
pH (UNITS)		6.	9	6.	9	7.	0	7.	1	7.0
HARDNESS (CaCO3)		75	0	. 900	0	55	0	65	0	713
ELECT. COND.		990)	970)	810	2	790	0	890
ÇHLORIDE		26	·	30)	40)	58	3	39
AMMONIA NITROGEN (N)		0.2		. 0.1		0.3	3	0.5	5	. 0.3
NITRATE (N)		0.6	, •	1.7	,	0.5	;	23.0)	6.5
ARSENIC	<	0.005	<	0.005	· <	0.005	<	0.005	<	0.005
CADMIUM	<	0.001	<	0.001	.<	0.001	<	0.001	<	0.001
CHROMIUM .	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01
COPPER		0.007		0.009		0.003		0.002		0.005
MANGANESE		2.88		1,49		1.02		0.83		1.56
MERCURY	<	0.0002	<	0.0002	<	0.0002	<	0.0002	<	0.0002
MOLYBDENUM	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01
NICKEL		0.024		0.007		0.003		0.003		0.009
LEAD	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01
ZINC *WELL TYPE - UG (UP-GRAD	< DIENT) - I	0.05 DG (DOWN	< I-GR/	0.05 ADIENT)	<	0.05	<	0.05	<	0.05

SPRINGFIELD METRO SANITARY DISTRICT

LOCATION: SUGAR CREE	LOCATION: SUGAR CREEK PLANT				(REPORTED QUARTERLY)						
WELL NUMBER - SU-6 (IN GROUND ELEVATION: 5		·	!		* TC			VATION: 54	11.00		
SAMPLE DATE: WATER ELEVATION: WATER DEPTH (ff.):		MAR. 11		JUN. 16		SEP, 14		DEC 9		AVE.	
pH (UNITS)		7.0		7.3		7.3	3	7.1		7.1	
HARDNESS (CaCO3)		460)	500	1	440	,	460		465	
ELECT. COND.		120	t	740		770	•	760		598	
CHLORIDE		2		1		2		7		3	
AMMONIA NITROGEN (N)		11.6		5.2		8.6		11.3		9.2	
NITRATE (N)		0.9		0.3		0.4		0.3		0.5	
NITRATE (N) - 48 MO. AVE.		0.4	•	0.4		0.4	•	. 0.4		0.4	
ARSENIC		0.006	<	0.005	<	0.005	<	0.005	<	0.005	
CADMIUM	<	0.001	<	0.001	<	0.001	<	0.001	<	0.001	
CHROMIUM	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	
COPPER	<	0.002	<	0.005		0.008	<	0.002	<	0.004	
MANGANESE		0.32		0.15		0.16		0.09		0.18	
MERCURY	<	0.0002	<	0.0002	<	0.0002	<	0.0002	<	0.0002	
MOLYBDENUM	. <	0.01	<	. 0.01	<	0.01	<	0.01	<	0.01	
NICKEL		0.001	<	0.005	<	0.001	<	0.001	<	0.002	
LEAD	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	
ZINC *WELL TYPE - UG (UP-GRAD!			I-GR		< FD	0.05	<	0.05	<	0.06	

TABLE#8

SPRINGFIELD METRO SANITARY DISTRICT

LOCATION: SUGAR CREEK PLANT

(REPORTED QUARTERLY)

UNDERDRAIN

SAMPLE DATE:		MAR. 11		JUN. 16		SEP. 14		ĎEC 9		AVE.
pH (UNITS)		6.9		7.	0	7.	0	7.0)	7.0
HARDNESS (CaCO3)		800		75	٠ -	1050)	900) .	875
ELECT. COND.		1100		1120) .	1390)	1310)	1230
CHLORIDE		65		150)	95	į	125		109
AMMONIA NITROGEN (N)		2.4		0.1		0.1		0.1		0.7
NITRATE (N)		46.0		2.0	I	59.0		16.2		30.8
ARSENIC	<	0.005	<	0.005	< '	0.005	<	0.005	<	. 0,005
CADMIUM	<	0.001 <	<	0.001	<	0.001	<	0.001	<	0.001
CHROMIUM	<	0.01 <	:	0.01	<	0.01	<	0.01	<	0.01
COPPER		0.026		0.006		0.033		0.009		0.019
MANGANESE		0.35		0.85		0.50		0.66		0.59
MERCURY	<	0.0002 <		0.0002	<	0.0002	<	0.0002	<	0.0002
MOLYBDENUM ·		0.01 <		0.01	<	0.01	<	0.01	<	0.01
NICKEL		0.010		0.006		0.010		0.006		0.008
LEAD	<	0.01 <		0.01	<	0.01	<	0.01	<	0.01
ZINC	<	0.05 <		0.05	<	0.05		0.06	<	0.05

ALL RESULTS EXPRESSED AS mg/l UNLESS OTHERWISE NOTED. ELECTRICAL CONDUCTIVITY EXPRESSED AS MICROMHOS/CM.

Attachment "A"

Priority Pollutants Results:

Raw Sewage Influent Tertiary Effluent Sludge Disposal

IMI Analytical Services, LLC

NELAC Accredited #100447

2110 N. Republic St.
Springfield, IL. 62702
217-698-0642 Fax: 217-698-0656
tmi@tmilab.com

)4-Aug-08

Fred Nika Springfield Metro Sanitary Dist. 3017 N. Eighth Springfield, IL 62707

ΓΕL: (217) 528-0491 FAX (217) 528-0497

RE: SMSD Sugar Creek Annual

Order No.: 0807094

Dear Fred Nika:

IMI Analytical Services, LLC received 3 sample(s) on 7/16/2008 for the analyses presented in the following report.

Analytical results reported relate only to the actual samples tested. There were no problems with the analyses unless noted on the case narrative or qualified on the analytical results. The final report includes this cover letter, analytical report and a copy of the chain of custody. It may also include but not be limited to letters of explanation or raw data.

Dr. David Carpenter Laboratory Director TMI Analytical Services, LLC

Springfield Metro Sanitary Dist.

SMSD Sugar Creek Annual

Lab Order: 0807094

CLIENT:

Project:

CASE NARRATIVE

Date: 04-Aug-08

All samples were received and analyzed within method required holding times unless qualified in the report. Samples met specified acceptance criteria except where noted below or qualified on the report. Microbiological field samples are not corrected based on data obtained for blank samples.

Subcontracted analyses were performed at NELAC accredited laboratory #100226.

D=RL has been set at or above method detection limit and below limit of quantitation.

Report Qualifiers:

- Increased reporting limit due to required dilution
- B Analyte detected in the associated Method Blank
- Analyte failed to meet the required screptures criteria for duplicate analysis
- M Manix interference(s) identified
- RL. Reporting Limit
- TIP Cuba-towal

- The laboratory control sample failed to meet the required accordance criteria
- E Value above quantitation range
- H Holding times for preparation or analysis exceeds
- P Chemical preservation discrepency noted at time of malvois
- Se Scan Only

TNTC Too numerous to count

 Verification standard recovery failed to meet the required acceptance criteria. TMI Analytical Services, LLC

Laboratory Results Date: 04-Aug-08

LIENT:	Springfield Metro Sanitary D	ris L		Lab Ord	er: 0807094
roject:	SMSD Sugar Creek Annual			_	
ab ID:	0807094-001		Collection	Date: 7/16/	2008 7:00:00 AM
Client Sample ID				Aatrix: AQU	
Analyses		RL	Resuit Qual	-	Date Analyzed '
ORGANOCHLORIN	E PESTICIDES		SW8081A		Analyst SUB
4,4'-DOD		0.05	<rl< td=""><td>μg/L.</td><td>7/21/2008</td></rl<>	μg/L.	7/21/2008
4,4"-DDE		0.05	<rl< td=""><td>µg/L ·</td><td>7/21/2008</td></rl<>	µg/L ·	7/21/2008
4,4'-DDT		0.05	0.06	µg/L,	7/21/2008
Aldrin		0.05	<rl< td=""><td>µg/L</td><td>7/21/2008</td></rl<>	µg/L	7/21/2008
alpha-BHC	•	0.05	<r1.< td=""><td>hð/Ľ</td><td>7/21/2008</td></r1.<>	hð/Ľ	7/21/2008
bela-BHC		0.05	· <rl< td=""><td>ha_lr</td><td>7/21/2008</td></rl<>	ha _l r	7/21/2008
Chlordane		D.05	<rl< td=""><td>µg/∟</td><td>7/21/2008</td></rl<>	µg/∟	7/21/2008
delta-BHC		0.05	<rl< td=""><td>µg/L</td><td>7/21/2008</td></rl<>	µg/L	7/21/2008
Dieldrin		0.05	<rl< td=""><td>μg/L</td><td>7/21/2008</td></rl<>	μg/L	7/21/2008
Endosulfan I		0.05	≺RL	µg/L	7/21/2008
Endosulfan II		0.05	<rl.< td=""><td>ug/L</td><td>7/21/2008</td></rl.<>	ug/L	7/21/2008
Endosulfan sulf	ale	0.05	∢RL '	hD/L	7/21/2008
Endrin		0.08	· <rl< td=""><td>µg/L</td><td>7/21/2008</td></rl<>	µg/L	7/21/2008
Endrin aldehydd	•	0.05	<rl< td=""><td>pg/L</td><td>7/21/2008 .</td></rl<>	pg/L	7/21/2008 .
gamma-BHC		0,05	<rl< td=""><td>pg/L</td><td>7/21/2008</td></rl<>	pg/L	7/21/2008
Heptachlor		0,05	<fu.< td=""><td>µg/L</td><td>7/21/2008</td></fu.<>	µg/L	7/21/2008
Heptachlor epo	kide	0.05	<rl< td=""><td>µg∕L</td><td>7/21/2008</td></rl<>	µg∕L	7/21/2008
Toxaphene		0.50	. ≪RL	µg/L	7/21/2008
POLYCHLORINA	TED BIPHENYLS		SW8082		Analyst SUE
Arector 1016		1,0	≪RL	μg/L	7/21/2006
Aroctor 1221		1.0	<rl< td=""><td>ρg/L.</td><td>7/21/2008</td></rl<>	ρg/L.	7/21/2008
Aroctor 1232		1.0	<rl< td=""><td>µg/L</td><td>7/21/2008</td></rl<>	µg/L	7/21/2008
Aroctor 1242		1.0	<rl< td=""><td>µg/L</td><td>7/21/2008</td></rl<>	µg/L	7/21/2008
Aroctor 1248		1.0	<rl< td=""><td>ha/r</td><td>7/21/2008</td></rl<>	ha/r	7/21/2008
Arodor 1254		1.0	<rl< td=""><td>hg/L</td><td>7/21/2008</td></rl<>	hg/L	7/21/2008
Aroctor 1260		1.0	<rl< td=""><td>hd/l"</td><td>7/21/2008</td></rl<>	hd/l"	7/21/2008
PRIORITY POLL	UTANY-SEMIVOLATILE ORGAI obenzene	NICS . 10.0	E625 <rl< td=""><td>(\$W35 µg/L</td><td>10) Analyst: KM 7/25/2008 6:27:00 PM</td></rl<>	(\$W35 µg/L	10) Analyst: KM 7/25/2008 6:27:00 PM
1,2-Dichlorobe	enzene	10.0	<rl< td=""><td>µg/L</td><td>7/25/2,008 6:27:00 PM</td></rl<>	µg/L	7/25/2,008 6:27:00 PM
1,2-Diphenyih		10.0	<rl< td=""><td>μg/L</td><td>7/25/2008 5:27:00 PM</td></rl<>	μg/L	7/25/2008 5:27:00 PM
1,3-Dichlorob	•	10.0	∢RL	µg/L	7/25/2008 6:27:00 PM

CLIENT:	pringfield Metro Sanitary Dist	-		Lab Order:	0807094
roject:	SMSD Sugar Creek Annual				
PRIORITY POLLUTA 1,4-Dichlorobenze	NT-SEMIVOLATILE ORGANICS ne	10.0	E625 ≪RL	(SW3510) µg/L	Analyst: KM 7/25/2008 6:27:00 PM
2,4,6-Trichlorophe	noi	10.0	< ₹1 ,	µg/L	7/25/2008 6:27:00 PM
2,4-Dichloropheno	À	10.0	4RL	µg/L	7/25/2008 6:27:00 PM
2,4-Dimethylphen	al	10.0	⊲RL	µg/L	7/25/2008 6:27:00 PM
2,4-Dinitrophenol	•	10,0	≪RL	µg/L	7/25/2008 6:27:00 PM
2,4-Dintrololuene		50.0	≺RL	μ <u>9</u> /L	7/25/2008 6:27:00 PM
2,6-Dintrotoluene		10.0	≪RL	µg/L	7/25/2008 6:27:00 PM
2-Chloronaphthal	ene .	10.0	4RL	µg/L	7/25/2008 6:27:00 PM
2-Chlorophenol		10,0	<ril< td=""><td>µg/L</td><td>7/25/2008 6:27:00 PM</td></ril<>	µg/L	7/25/2008 6:27:00 PM
2-Nitrophenol		10.0	< ₹ L	μg/L	7/25/2008 6:27:00 PM
3,3'-Dichlorobens	ddine	20.0	<rl< td=""><td>µg/L</td><td>7/25/2008 6:27:00 PM</td></rl<>	µg/L	7/25/2008 6:27:00 PM
4,6-Dinitro-2-met	hylphenol	50.0	<rl< td=""><td>µg/L</td><td>7/25/2008 6:27:00 PM</td></rl<>	µg/L	7/25/2008 6:27:00 PM
4-Bromophenyl p	henyl ether	10.0	<rl< td=""><td>µg/L</td><td>7/25/2008 6:27:00 PM</td></rl<>	µg/L	7/25/2008 6:27:00 PM
4-Chloro-3-methy	/iphenol	10.0	. <&T	µg/L	7/25/2008 6:27:00 PM
4-Chlorophenyl p	henyl ether	10.0	4RL	µg/L	7/25/2008 6:27:00 PM
4-Nitrophenol		50.0	<rl< td=""><td>µg/L</td><td>7/25/2008 6:27:00 PM</td></rl<>	µg/L	7/25/2008 6:27:00 PM
Acenophilhene		10.0	<rl.< td=""><td>h8/r</td><td>7/25/2008 6:27:00 PM</td></rl.<>	h8/r	7/25/2008 6:27:00 PM
Acenaphthylene		10.0	<rl.< td=""><td>µg∕L</td><td>7/25/2008 6:27:00 PM</td></rl.<>	µg∕L	7/25/2008 6:27:00 PM
Anthracene		10,0	⊲RL	µg/L	7/25/2008 6:27:00 PM
Benz(a)anlhrace	ne	10.0	⊲રા∟	µg/L .	7/25/2008 6:27:00 PM
Benzidine		10.0	⋖RL	₽g/L	7/25/2008 6:27:00 PM
Вепго(а)ругеле		10.0	<rt.< td=""><td>194L</td><td>7/25/2008 6:27:00 PM</td></rt.<>	194L	7/25/2008 6:27:00 PM
Benzo(p)fluoran	thene	10,0	<rl< td=""><td>ψg/L</td><td>7/25/2008 6;27:00 PM</td></rl<>	ψg/L	7/25/2008 6;27:00 PM
Benzo(g,h,i)per	itene	10.0	<r1.< td=""><td>µg/L</td><td>7/25/2008 6:27:00 PM</td></r1.<>	µg/L	7/25/2008 6:27:00 PM
Benzo(k)/luoran	thene	10.0	<rl< td=""><td>µg/L</td><td>7/25/2008 6:27:00 PM</td></rl<>	µg/L	7/25/2008 6:27:00 PM
Bis(2-chicroeth	oxy)melhane	20.0	⊲ ₹L	h3/L	7/25/2008 6:27:00 PM
Bis(2-chlometh	yl)ether	10,0	₹L	µg/L	7/25/2008 6:27:00 PM
Bis(2-chloroiso	propyl)ether	10.0	≺RL	µg/L	7/25/2008 6:27:00 PM
Bls(2-elhylhex)	l)chthelale	10.0	<rl.< td=""><td>ից/Լ</td><td>7/25/2008 6:27:00 PM</td></rl.<>	ի ց/Լ	7/25/2008 6:27:00 PM
Butyl benzyl pl	ihalale	10.0	<r1.< td=""><td>μg/t,</td><td>7/25/2008 6:27:00 PM</td></r1.<>	μg/t,	7/25/2008 6:27:00 PM
Chrysene		10.0	- ₹2L,	h9/L	7/25/2006 6:27:00 PM
Dibenz(a,h)ani	hracene	10.0	<rl< td=""><td>µg/L</td><td>7/25/2008 6:27:00 PM</td></rl<>	µg/L	7/25/2008 6:27:00 PM
Diethyl phthala	le	10.0	<rl< td=""><td>ից/L</td><td>7/25/2008 6:27:00 PM</td></rl<>	ի ց/L	7/25/2008 6:27:00 PM
Dimethyl phthu	date	10,0	<rl< td=""><td>µg/L</td><td>7/25/2008 5:27:00 PM</td></rl<>	µg/L	7/25/2008 5:27:00 PM
Di-n-bulyl phth	alate	10,0	<fu.< td=""><td>µg/L</td><td>7/25/2008 6:27:00 Pt</td></fu.<>	µg/L	7/25/2008 6:27:00 Pt

TMI	Analytical	Services,	LLC

Laboratory Results Date: 04-Aug-08

CLIENT:	Springfield Metro Sanitary Dist	•		Lab Order:	0807094
Project:	SMSD Sugar Creek Annual				
PRIORITY POLL	LUTANT-SEMIVOLATILE ORGANICS	10.0	E625 <rl< th=""><th>(SW3510)</th><th>Analyst KM 7/25/2008 6:27:00 PM</th></rl<>	(SW3510)	Analyst KM 7/25/2008 6:27:00 PM
Fluoranihene	:	10.0	<rl< td=""><td>µg/L</td><td>7/25/2008 6:27:00 PM</td></rl<>	µg/L	7/25/2008 6:27:00 PM
Fluorene		10.0	<rl< td=""><td>pg/L</td><td>7/25/2008 6:27:00 PM</td></rl<>	pg/L	7/25/2008 6:27:00 PM
Hexachlorob	enzene	10.0	<rl< td=""><td>µg/L</td><td>7/25/2008 6:27:00 PM</td></rl<>	µg/L	7/25/2008 6:27:00 PM
Hexachtorob	utadiene	10.0	≺RL	µg∕L.	7/25/2008 6:27:00 PM
Hexachloroc	cyclopentadiene	10,0	≺RL D	µg/L	7/25/2008 6:27:00 PM
Herachloroe	ethane	10.0	<rl< td=""><td>hay.</td><td>7/25/2008 6:27:00 PM</td></rl<>	hay.	7/25/2008 6:27:00 PM
Indeno(1,2,3	3-cd)pyrene	10.0	<rl< td=""><td>ho/L</td><td>7/25/2008 6:27:00 PM</td></rl<>	ho/L	7/25/2008 6:27:00 PM
Isophorone	•	10.0	<r1.< td=""><td>h8/J</td><td>7/25/2008 6:27:00 PM</td></r1.<>	h8/J	7/25/2008 6:27:00 PM
Naphthalen	e	10.0	<rl< td=""><td>µ9/L</td><td>7/25/2008 5:27:00 PM</td></rl<>	µ9/L	7/25/2008 5:27:00 PM
Nitrobenzer	ne ,	10.0	≺RL	µg/L	7/25/2008 6:27:00 PM
N-Nitrosodi	methylamine	10.0	<rl< td=""><td>h9/r</td><td>7/25/2008 6:27:00 PM</td></rl<>	h9/r	7/25/2008 6:27:00 PM
N-Nitrosodi	n-propylamine	10,0	<rl '<="" td=""><td>µg/L</td><td>7/25/2008 6;27;00 PM</td></rl>	µg/L	7/25/2008 6;27;00 PM
N-Nitrosodi	iphėnylamine	10,0	. <rl< td=""><td>ከ<mark>ወ</mark>ኒr</td><td>7/25/2008 6:27:00 PM</td></rl<>	ከ <mark>ወ</mark> ኒr	7/25/2008 6:27:00 PM
Pentachion	ophenol	20.0	≺RL	149/L	7/25/2008 6:27:00 PM
Phenanthro	ene	10.0	≺RL.	µg/L	7/25/2008 6:27:00 PM
Phenal		10.0	<ri.< td=""><td>րց∕ւ</td><td>7/25/2008 6:27:00 PM</td></ri.<>	րց∕ւ	7/25/2008 6:27:00 PM
Pyrene		10,0	<rl< td=""><td>µg/L</td><td>7/25/2008 6:27:00 PM</td></rl<>	µg/L	7/25/2008 6:27:00 PM
VOLATILE O	RGANIC COMPOUNDS BY GCIMS		E624		Analyst: GV
1,1,1-Trict	nloroethane	2.0	≺RL	μΩ/L	7/19/2008
1,1,2,2-Te	drachiomelhane	2.0	< PUL	hg/L	7/19/2008
1,1,2-Trick	hloroethane	2.0	<ru.< td=""><td>pg/L</td><td>7/19/2008</td></ru.<>	pg/L	7/19/2008
1,1-Dichlo	roethane	2.0	<rl< td=""><td>hô/F</td><td>7/19/2008</td></rl<>	hô/F	7/19/2008
1,1-Dichlo	roethene	2.0	<rl< td=""><td>µg/L</td><td>7/19/2008</td></rl<>	µg/L	7/19/2008
1,2-Dichlo	proethane	2.0	<₽L	µg/L	7/19/2008
1,2-Dichk	oropropane	2.0	<rl< td=""><td>μg/t</td><td>7/19/2008</td></rl<>	μg/t	7/19/2008
2-Chlorne	hyl vinyl ether	5.0	<rl< td=""><td>, h∂√r</td><td>7/19/2008</td></rl<>	, h∂√r	7/19/2008
Acrolein		0.5	≺RL	µg/L	7/19/2008
Acrylonite	rile	1.0	<rl< td=""><td>hð/r</td><td>7/19/2008</td></rl<>	hð/r	7/19/2008
Benzene		2.0	<rl< td=""><td>µg/L</td><td>7/19/2008</td></rl<>	µg/L	7/19/2008
Bromotor	om .	2.0	<rl< td=""><td>μgΛL</td><td>7/19/2008</td></rl<>	μgΛL	7/19/2008
Carbon N	elrachloride	2.0	<r1_< td=""><td>µg/L</td><td>7/19/2008</td></r1_<>	µg/L	7/19/2008
Chlorabe	enzene	2.0	<rl< td=""><td>µ9∕IL</td><td>7/19/2008</td></rl<>	µ9∕IL	7/19/2008
Chiorodi	bromomelhane	2.0	<rl< td=""><td>μg/L</td><td>7/19/2008</td></rl<>	μg/L	7/19/2008
Chloroet	thane	2.0	<ril< td=""><td>pg/L</td><td>7/19/2008</td></ril<>	pg/L	7/19/2008

TMI Analytical	Services,	LLC
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Laboratory Results

Date: 04-Aug-08

CLIENT: Project:	Springfield Metro Sanitary Di SMSD Sugar Creek Annual	sL		Lab Or	der: 0807094
VOLATILE ORG	SANIC COMPOUNDS BY GC/MS		£624		Analyst: GV
Chioroform		2.0	3.2	µg/L	7/19/2008
cis-1,3-Dichi	oropropene	2.0	<rl< td=""><td>µg/L</td><td>7/19/2008</td></rl<>	µg/L	7/19/2008
Dichlorobron	nomethane	2.0	<-PL	μg/L,	7/19/2008
Ethylbenzen		2.0	<rl< td=""><td>µg/L</td><td>7/19/2008</td></rl<>	µg/L	7/19/2008
Methyl Bron	ride	20	<rl< td=""><td>μg/L</td><td>7/19/2008</td></rl<>	μg/L	7/19/2008
Methyl Chlo	ride	2.0	<rl< td=""><td>µg/L</td><td>7/19/2008</td></rl<>	µg/L	7/19/2008
Methylene o	chloride	5.0	<rl< td=""><td>µg/L</td><td>7/19/2008</td></rl<>	µg/L	7/19/2008
Tetrachloro	ethena .	2.0	≪RL	μg/L	7/19/2008
Toluene		2.0	<rl.< td=""><td>hō/L'</td><td>7/19/2008</td></rl.<>	hō/L'	7/19/2008
trans-1,2-D	Schloroethene	2.0	<rl< td=""><td>JYgq</td><td>7/19/2008</td></rl<>	JYgq	7/19/2008
trans-1,3-D	ichloropropene	2.0	<rl< td=""><td>µg/L</td><td>7/19/2008</td></rl<>	µg/L	7/19/2008
Trichloroett	hene	2.0	<rl< td=""><td>µg/L</td><td>7/19/2008</td></rl<>	µg/L	7/19/2008
Vinyl chlori	đe .	2.0	<rl< td=""><td>µg/L</td><td>7/19/2008</td></rl<>	µg/L	7/19/2008

fMI Analytical Services, LLC	Lab	oratory Results	Date: 04-	Aug-08
LIENT: Springfield Metro Sanitar Project: SMSD Sugar Creek Annu	-		Lab Oı	der: 0807094
Lab ID: 0807094-002 Client Sample ID: Terr Effluent		Collecti	on Date: 7/10 Matrix: AQ	5/2008 7:00:00 AM
Analyses	RL	Result Qu	, ,	Date Analyzed
THAI 190		Qu		DACE ANALYZED
ORGANOCHLORINE PESTICIDES 4,4'-DDD	0,05	SW8081A <rl< td=""><td>µg/L</td><td>Analyst: SUB 7/21/2008</td></rl<>	µg/L	Analyst: SUB 7/21/2008
4,4'-DDE	0.05	<rl< td=""><td>րջմե</td><td>7/21/2008</td></rl<>	րջմե	7/21/2008
4,41-001	0.05	<rl< td=""><td>µg/L</td><td>7/21/2008</td></rl<>	µg/L	7/21/2008
Aldrin	0,05	<rl< td=""><td>h3/L</td><td>7/21/2008</td></rl<>	h3/L	7/21/2008
alpha-BHC	0.05	<rl< td=""><td>hō/r</td><td>7/21/2008</td></rl<>	hō/r	7/21/2008
beta-BHC	0.05	<rl< td=""><td>µg/L</td><td>7/21/2008</td></rl<>	µg/L	7/21/2008
Chlordane	0.05	<rl< td=""><td>μg/L</td><td>7/21/2008</td></rl<>	μg/L	7/21/2008
della-BHC	0.05	<rt_< td=""><td>µ9/L</td><td>7/21/2008</td></rt_<>	µ9/L	7/21/2008
Dieldrin	0.05	<rl< td=""><td>µg/L</td><td>7/21/2008</td></rl<>	µg/L	7/21/2008
Endosulfan I	0,05	<rl< td=""><td>µg/L</td><td>7/21/2008</td></rl<>	µg/L	7/21/2008
Endosulfan II	0.05	<rl< td=""><td>μg/L</td><td>7/21/2008</td></rl<>	μg/L	7/21/2008
Endosulfan sulfale	0.05	<rl< td=""><td>µg/L</td><td>7/21/2008</td></rl<>	µg/L	7/21/2008
Endrin	0.05	<rl< td=""><td>μg/L</td><td>7/21/2008</td></rl<>	μg/L	7/21/2008
Endrin aldehyde	0.05	<r1.< td=""><td>μg/iL</td><td>7/21/2008</td></r1.<>	μg/iL	7/21/2008
gamma-BHC	0.05	≺RL	μg/L	7/21/2008
Heplachlor .	0.05	∢RL	μg/L	7/21/2008
Heptachlor époxide	0,05	<rl< td=""><td>ug/L</td><td>7/21/2008</td></rl<>	ug/L	7/21/2008
Toxaphene	0.50	<pl< td=""><td>րք/Լ</td><td>7/21/2008</td></pl<>	րք/Լ	7/21/2008
POLYCHLORINATED BIPHENYLS Aroclor 1016	1,0	SW#082 <rl< td=""><td>µg∕t.</td><td>Analyst SUB 7/21/2008</td></rl<>	µg∕t.	Analyst SUB 7/21/2008
Arodor 1221	1,0	-RL	pg/L	7/21/2008
Arodor 1232	1.0	√R 1	μ <u>ο</u> Λ.	7/21/2008
Arodor 1242	1.0	-RL	119/L	7/21/2008
Aroclor 1248	1.0		µg/L	7/21/2008
Arocior 1254	1.0	≺RL	h8/l"	7/21/2008
Arodor 1260	1.0	<rl< td=""><td>hā/r ha-</td><td>7/21/2008</td></rl<>	hā/r ha-	7/21/2008

E625

<RL

<RL

-PL

10.0

10.0

10.0

10,0

44 (H) U

PRIORITY POLLUTANT-SEMIVOLATILE ORGANICS

1,2.4-Trichlorobenzene

1,2-Diphenylhydrazine

1,3-Dichlorobenzene

1,2-Dichlorobenzene

CLIENT: Project:	Springfield Metro Sanitary Dist SMSD Sugar Creek Annual	•			Lab Order:	0807094
	LUTANT-SEMVOLATILE ORGANICS		For			
1,4-Dichlorol		10.0	E625 <rl< td=""><td></td><td>(SW3510) אַפּע</td><td>Analyst: KM 7/25/2008 7:09:00 PM</td></rl<>		(SW3510) אַפּע	Analyst: KM 7/25/2008 7:09:00 PM
2,4,6-Trichlo	rophenot	10.0	<pdl< td=""><td></td><td>µg∕L</td><td>7/25/2008 7:09:00 PM</td></pdl<>		µg∕L	7/25/2008 7:09:00 PM
2,4-Dichloro	·	10,0	≺RL		pg/L	7/25/2006 7:09:00 PM
2,4-Dimethy	Iphenol	10.0	≺RL		μg/L	7/25/2008 7:09:00 PM
2,4-Dinitropi	henol	10.0	<rl< td=""><td></td><td>µg/L</td><td>7/25/2008 7:09:00 PM</td></rl<>		µg/L	7/25/2008 7:09:00 PM
2,4-Dinkroto	duene	50,0	<rl< td=""><td></td><td>µg/L</td><td>7/25/2008 7:09:00 PM</td></rl<>		µg/L	7/25/2008 7:09:00 PM
2,6-Dinkrote	duene	10.0	<rl< td=""><td></td><td>pg/L</td><td>7/25/2008 7:09:00 PM</td></rl<>		pg/L	7/25/2008 7:09:00 PM
2-Chlorona;	ohlhalene	10,0	∢RL		յ ւց/ L	7/25/2008 7:09:00 PM
2-Chlorophi	enol	10.0	· <rl< td=""><td></td><td>µg∕L</td><td>7/25/2008 7:09:00 PM</td></rl<>		µg∕L	7/25/2008 7:09:00 PM
2-Nilrophen	not	10.0	<rl< td=""><td></td><td>µg/L</td><td>7/25/2008 7:09:00 PM</td></rl<>		µg/L	7/25/2008 7:09:00 PM
3,3°-Dichlor	robenzidine	20,0	< Pd.		µg/L	7/25/2008 7:09:00 PM
4,6-Dinitro-	2-methylphenol	50.0	<₹ા.	M	μ 9/ L	7/25/2008 7:09:00 PM
4-Bromoph	enyi phenyi ether	10.0	<rl< td=""><td></td><td>µg∕L</td><td>7/25/2006 7;09;00 PM</td></rl<>		µg∕L	7/25/2006 7;09;00 PM
4-Chiono-3	methylphenol	10.0	<rl< td=""><td>M</td><td>ug/L</td><td>7/25/2008 7:09:00 PM</td></rl<>	M	ug/L	7/25/2008 7:09:00 PM
4-Chloroph	enyl phenyl ether	10.0	<r4.< td=""><td></td><td>hፀ/Ľ</td><td>7/25/2008 7:09:00 PM</td></r4.<>		hፀ/Ľ	7/25/2008 7:09:00 PM
4-Nitrophe	not	50.0	<rl< td=""><td>М</td><td>μg/L</td><td>7/25/2008 7:09:00 PM</td></rl<>	М	μg/L	7/25/2008 7:09:00 PM
Acenaphth	iène	10.0	<rl< td=""><td></td><td>µg/L</td><td>7/25/2008 7:09:00 PM</td></rl<>		µg/L	7/25/2008 7:09:00 PM
Acenaphili	nylene	10.0	<rl< td=""><td></td><td>µ9/L</td><td>7/25/2008 7:09:00 PM</td></rl<>		µ9/L	7/25/2008 7:09:00 PM
Anthracen	e	10.0	<r1.< td=""><td></td><td>µg/L</td><td>7/25/2008 7:09:00 PM</td></r1.<>		µg/L	7/25/2008 7:09:00 PM
Benz(a)an	Mhracene	10,0	⊲સ∟		ր∂/ <u>୮</u>	7/25/2008 7:09:00 PM
Benzidine		10.0	<rl< td=""><td></td><td>pg/L</td><td>7/25/2008 7:09:00 PM</td></rl<>		pg/L	7/25/2008 7:09:00 PM
Benzo(a)c	pyrene	10,0	<rl< td=""><td></td><td>µg/L</td><td>7/25/2008 7:09:00 PM</td></rl<>		µg/L	7/25/2008 7:09:00 PM
Benzo(b)f	luoranihene	10.0	<rl,< td=""><td>٠</td><td>μg/L</td><td>7/25/2008 7:09:00 PM</td></rl,<>	٠	μg/L	7/25/2008 7:09:00 PM
Benzo(g,)	ul)perylene	10.0	<rl< td=""><td>М</td><td>µg/L</td><td>7/25/2006 7:09:00 PM</td></rl<>	М	µg/L	7/25/2006 7:09:00 PM
Benzo(k)f	luoranthene	10.0	<rl< td=""><td></td><td>µ9/L,</td><td>7/25/2008 7:09:00 PM</td></rl<>		µ9/L,	7/25/2008 7:09:00 PM
Bls(2-chk	omethoxylmethane	20.0	<rl< td=""><td></td><td>ho\r"</td><td>7/25/2008 7:09:00 PM</td></rl<>		ho\r"	7/25/2008 7:09:00 PM
Bis(2-cht	proethyl)ether	10.0	· <r0_< td=""><td></td><td>hô/L</td><td>7/25/2008 7:09:00 PM</td></r0_<>		hô/L	7/25/2008 7:09:00 PM
Bis(2-chic	orolsopropyl)ether	10.0	<rl< td=""><td></td><td>hā/ŗ</td><td>7/25/2008 7:09:00 PM</td></rl<>		hā/ŗ	7/25/2008 7:09:00 PM
Bls(2-eth	ythexyt)phthalale	100	266		hg/L	8/1/2008 4:54:00 AM
Butyl ber	nzyl phthalate	10,0	<r1.< td=""><td></td><td>µg/L</td><td>7/25/2008 7:09:00 PM</td></r1.<>		µg/ L	7/25/2008 7:09:00 PM
Chrysene	e	10,0	<rl< td=""><td></td><td>μ9/Γ</td><td>7/25/2008 7:09:00 PM</td></rl<>		μ 9/Γ	7/25/2008 7:09:00 PM
Dibenz(a	h)anthracene	10.0	≪RI.		µg/L	7/25/2008 7;09:00 PM
Diethyl p	inthalate	10.0	≺RL		µg/L	7/25/2008 7:09:00 PM
Dimethyl	phthalate	10.0	≺Ri		µg/L	7/25/2008 7:09:00 PM
Di-n-but	y phthalate	10.0	<r1< td=""><td></td><td>µg/L</td><td>7/25/2008 7:09:00 PM</td></r1<>		µg/L	7/25/2008 7:09:00 PM

Analyst KM 7/25/2008 7:09:00 PM

7/25/2008 7:09:00 PM

7/25/2008 7:09:00 PM

7/25/2008 7:09:00 PM

(SW3510)

µg/L

μg/L

µg/L

119/L

CLIENT:	Springfield Metro Sanitary Dist			Lab Order:	0807094
Project:	SMSD Sugar Creek Annual				
PRIORITY POLL Di-n-octyl phl	LUTANT-SEMIVOLATILE ORGANICS	10.0	E625 <rl< td=""><td>(SW3510) ug/L</td><td>Analyst: KM 7/25/2008 7:09:00 PM</td></rl<>	(SW3510) ug/L	Analyst: KM 7/25/2008 7:09:00 PM
Fluoranthene	:	10.0	<rl< td=""><td>μg/L</td><td>7/25/2008 7:09:00 PM</td></rl<>	μg/L	7/25/2008 7:09:00 PM
Fluorene		10.0	<rl< td=""><td>μg/L</td><td>7/25/2008 7:09:00 PM</td></rl<>	μg/L	7/25/2008 7:09:00 PM
Hexachiorob	enzene	10.0	<rl< td=""><td>µg/L</td><td>7/25/2008 7:09:00 PM</td></rl<>	µg/L	7/25/2008 7:09:00 PM
Hexachiorob	utadiene	10.0	<pl< td=""><td>μg/L</td><td>7/25/2008 7:09:00 PM</td></pl<>	μg/L	7/25/2008 7:09:00 PM
Hexachloroc	yclopentadiene	10.0	<ril d<="" td=""><td>µg/L</td><td>7/25/2008 7:09:00 PM</td></ril>	µg/L	7/25/2008 7:09:00 PM
Hexachloroe	thane	10.0	<rl< td=""><td>յւg/L</td><td>7/25/2008 7:09:00 PM</td></rl<>	յ ւ g/L	7/25/2008 7:09:00 PM
Indeno(1,2,3	3-cd)pyrene	10.0	<rl< td=""><td>µg/L</td><td>7/25/2008 7:09:00 PM</td></rl<>	µg/L	7/25/2008 7:09:00 PM
Isophorone		10.0	<rl.< td=""><td>µg/L</td><td>7/25/2008 7:09:00 PM</td></rl.<>	µg/L	7/25/2008 7:09:00 PM
Naphthalen	e	10.0	<rl< td=""><td>μg/L,</td><td>7/25/2008 7:09:00 PM</td></rl<>	μg/L,	7/25/2008 7:09:00 PM
Nitrobenzer	nė.	10.0	<rl.< td=""><td>µg/L</td><td>7/25/2008 7:09:00 PM</td></rl.<>	µg/L	7/25/2008 7:09:00 PM
N-Mirosodi	methylamine	10_0	<rl< td=""><td>h8/L</td><td>7/25/2008 7:09:00 PM</td></rl<>	h8/L	7/25/2008 7:09:00 PM
N-Nitrosodi	-n-propylanine	10.0	<rl .<="" td=""><td>DQ/L</td><td>7/25/2008 7:09:00 PM</td></rl>	DQ/L	7/25/2008 7:09:00 PM
N-Nitrosod	phenylamine *	10,0	<r1.< td=""><td>μg/L,</td><td>7/25/2008 7:09:00 Pt</td></r1.<>	μg/L,	7/25/2008 7:09:00 Pt
Penlaction	ophenol	20.0	<rl< td=""><td>μο/L</td><td>7/25/2008 7:09:00 Pt</td></rl<>	μο/L	7/25/2008 7:09:00 Pt
Phenanthn	ene	10.0	<rl< td=""><td>pg/L</td><td>7/25/2008 7:09:00 P</td></rl<>	pg/L	7/25/2008 7:09:00 P
Phenoi		10,0	<rl m<="" td=""><td>µg/L.</td><td>7/25/2008 7:09:00 P</td></rl>	µg/L.	7/25/2008 7:09:00 P
Pyrene		10.0	<rl.< td=""><td>µg/L</td><td>7/25/2008 7:09:00 P</td></rl.<>	µg/L	7/25/2008 7:09:00 P
VOLATILE O	RGANIC COMPOUNDS BY GC/MS		E624		Analyst: G
1,1,1-Trict	Noroethane	2.0	< ₹ L	hB/r	7/19/2008
1,1,2,2-Te	Irachioroethane	2.0	<r1.< td=""><td>µg/L</td><td>7/19/2008</td></r1.<>	µg/L	7/19/2008
1,1.2-Trid	Noroethane	2.0	<rl.< td=""><td>na_lr .</td><td>7/19/2008</td></rl.<>	na _l r .	7/19/2008
1.1-Dichle	methane .	2.0	≪L	µg/L	7/19/2008
1.1-Dichio	roethene	2.0	∢રા∟	µg/L	7/19/2008
1,2-Dichio	roethane	2.0	<rl, `<="" td=""><td>ከውኒ</td><td>7/19/2008</td></rl,>	ከውኒ	7/19/2008
1,2-Dichk	ompropane	20	· <rl< td=""><td>μ<u>ο</u>/L</td><td>7/19/2008</td></rl<>	μ <u>ο</u> /L	7/19/2008
2-Chloroe	ethyl vinyl ether	5.0	<rl< td=""><td>POT.</td><td>7/19/2008</td></rl<>	POT.	7/19/2008
Acrolein		0.5	<rl< td=""><td>ha/L</td><td>7/19/2008</td></rl<>	ha/L	7/19/2008
Acrylonita	ile .	1.0	<rl< td=""><td>µg∕I_</td><td>7/19/2008</td></rl<>	µg∕I_	7/19/2008
Benzene		2.0	4RL	µg/1_	7/19/2008
Bramefo	rm	2.0	≺RL	μ 9/L	7/19/2008
Carbon t	etrachloride	2.0	<rl< td=""><td>µg∕L</td><td>7/19/2008</td></rl<>	µg∕L	7/19/2008
Chlorobe	enzene	2.0	< ₹₹_	µg/L	7/19/2008
Chiorodi	bromomethane	2.0	<rl< td=""><td>µg/L</td><td>7/19/2008</td></rl<>	µg/L	7/19/2008
Chloroet		2.0	≺RL	μg/L	7/19/2008

CLIENT: Project:	Springfield Metro Sanitary Di SMSD Sugar Creek Annual	iL		Lab Order:	: 0807094
/OLATILE ORG	ANIC COMPOUNDS BY GC/MS		E624	····	Analyst; GV
Chloroform	•	2.0	<rl< td=""><td>µg∕L</td><td>7/19/2008</td></rl<>	µg∕L	7/19/2008
cis-1,3-Dichid	propropene	2.0	<rl< td=""><td>μg/L</td><td>7/19/2008</td></rl<>	μ g/ L	7/19/2008
Dichlorobron	nomethane	2.0	<rl< td=""><td>µg/L</td><td>7/19/2006</td></rl<>	µg/L	7/19/2006
Elhylbenzend	.	2.0	<rl< td=""><td>ի8/Γ</td><td>7/19/2008</td></rl<>	ի 8/Γ	7/19/2008
Methyl Brom	ide	2.0	<rl< td=""><td>µg/L</td><td>7/19/2008</td></rl<>	µg/L	7/19/2008
Methyl Chior	ide	2.0	<rl< td=""><td>µg/L</td><td>7/19/2008</td></rl<>	µg/L	7/19/2008
Melhylene d	Monde.	5.0	<rl< td=""><td>hayr .</td><td>7/19/2008</td></rl<>	hayr .	7/19/2008
Tetrachloroe	elhene	2.0	य.</td <td>· µg/L</td> <td>7/19/2008</td>	· µg/L	7/19/2008
Totuene	•	2.0	<rl< td=""><td>μ9/L</td><td>7/19/2008</td></rl<>	μ 9/ L	7/19/2008
trans-1,2-Di	chlomethene	2,0	<rl< td=""><td>µg/L</td><td>7/19/2008</td></rl<>	µg/L	7/19/2008
trans-1,3-Di	chloropropene	2.0	<rl< td=""><td>µg∕L</td><td>7/19/2008</td></rl<>	µg∕L	7/19/2008
Trichloroeth	ene .	2.0	<rl< td=""><td>h8/L</td><td>7/i9/2008</td></rl<>	h8/L	7/i9/2008
Vinyl chlorid	ie	2.0	<rl< td=""><td>μg/L</td><td>7/19/2008</td></rl<>	μg/L	7/19/2008

TMI Analytical Services, LLC

Laboratory Results Date: 04-Aug-08

LIENT:	Springfield Metro Sanitary D)ist.			Lab Orde	er: 0807094
roject:	SMSD Sugar Creek Annual					
ab ID:	0807094-003		Col	lection	Date: 7/16/7	1008 7:00:00 AM
Client Sample ID	: Anacrobic Sludge			N	latrix: SLUE	GE
Analyses		RL	Result	Qual	Units	Date Analyzed
ORGANOCHLORIN	E PESTICIDES		SW8081A			Analyst: SUE
4,4"-DDD		7.24	<rl< td=""><td>M</td><td>µg/Kg-dry</td><td>7/23/2008</td></rl<>	M	µg/Kg-dry	7/23/2008
4,4'-DDE		7.24	<rl< td=""><td>М</td><td>μολιζο-σιλ</td><td>7/23/2008</td></rl<>	М	μολιζο-σιλ	7/23/2008
4,4'-DDT		7.24	∢RI.	М	pg/Kg-dry	7/23/2008
Aldrin		7.24	<rl< td=""><td></td><td>þg/Kg-dry</td><td>7/23/2008</td></rl<>		þg/Kg-dry	7/23/2008
alpha-BHC		7.24	≺RL,		hayka-qu	7/23/2008
bela-BHC	•	7.24	≺RL.		µg/Kg-dry	7/23/2008
Chlordane		14.5	<₽L	М	µg/Kg-dry	7/23/2008
della-BHC	·	7.24	<rl.< td=""><td></td><td>pg/Kg-dry</td><td>7/23/2008</td></rl.<>		pg/Kg-dry	7/23/2008
Dieldrin		7.24	≺સ∟	М	µg/Kg-dry	7/23/2008
Endosultan I	•	7.24	<rl< td=""><td>М</td><td>ug/Kg-dry</td><td>7/23/2008</td></rl<>	М	ug/Kg-dry	7/23/2008
Endosulfan II		7.24	≺RL	M	µg/Kg-dry	7/23/2008
Endosulfan sult	ale	7.24	⊀RL	M	µg/Kg-dry	7/23/2008
Endrin		7.24	⊲RL	М	µg/Kg-dry	7/23/2008
Endrin aldehyd	ė	7.24	<rt.< td=""><td>M</td><td>μg/Kg-dry</td><td>7/23/2008</td></rt.<>	M	μg/Kg-dry	7/23/2008
gamma-BHC		7.24	≺RL		µg/Kg-dry	7/23/2008
Heplachlor		7.24	<rl< td=""><td></td><td>µg/Kg-dry</td><td>7/23/2008</td></rl<>		µg/Kg-dry	7/23/2008
Heptachlor epo	pride	7.24	<rl< td=""><td></td><td>µg/Kg-dry</td><td>7/23/2008</td></rl<>		µg/Kg-dry	7/23/2008
Toxaphene		130	≺Rt	M	µg/Kg-dry	7/23/2008
POLYCHLORINA	TED BIPHENYLS		SW8082	•		Analyst: Si
Aroctor 1016		163	4RL	•	µg/Kg-dry	7/23/2008
Aroclor 1221		163	<rl< td=""><td></td><td>ϸϿϺϼ·ϭͱϒ</td><td>7/23/2008</td></rl<>		ϸϿϺϼ·ϭͱϒ	7/23/2008
Arodor 1232		163	<rl< td=""><td>-</td><td>µg/Kg-dry</td><td>7/23/2008 .</td></rl<>	-	µg/Kg-dry	7/23/2008 .
Aroclor 1242		163	< ₹1.		havearan	7/23/2008
Arodor 1248	•	163	<rl< td=""><td>•</td><td>pg/Kg-dry</td><td>7/23/2008</td></rl<>	•	pg/Kg-dry	7/23/2008
Arodor 1254		163	<ri< td=""><td>-</td><td>hakka-qiy</td><td>7/23/2008</td></ri<>	-	hakka-qiy	7/23/2008
Arocloi 1260		163	<ri< td=""><td>-</td><td>pg/Kg-dry</td><td>7/23/2008</td></ri<>	-	pg/Kg-dry	7/23/2008
HERBICIDES, TO	CLP .		SW1311/815	1A		Analyst: S
2,4,5-TP (Silv	ex)	0.100	- ধ	L M	mg/L	7/22/2008
2,4-D		0.100	<r< td=""><td>L M</td><td>mg/L</td><td>7/22/2008</td></r<>	L M	mg/L	7/22/2008
PESTICIDES, TO	CLP	0.0005	SW1311/808		mall	Analyst: 5
Chlordane	•	0.0025	<r< td=""><td>L</td><td>mg/L</td><td>7/23/2008</td></r<>	L	mg/L	7/23/2008

TMI A	Analytical	Services,	LLC
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Laboratory Results

Date: 04-Aug-08

	Springfield Metro Sanitary I	Jist.		Lab Order:	0807094
Project:	SMSD Sugar Creek Annual			-	
PESTICIDES, TCLP	,		V1311/8081A		Analysi: SUB
Endrin		0,0002	<rl< td=""><td>mg/L</td><td>7/23/2008</td></rl<>	mg/L	7/23/2008
gamma-8HC		0,0002	<rl< td=""><td>mg/L</td><td>7/23/2008</td></rl<>	mg/L	7/23/2008
Heptachlor		0.0002	<rl .<="" td=""><td>∰g/L</td><td>7/23/2008</td></rl>	∰g/L	7/23/2008
Heptachlor epoxic	de	0.0002	<rl .<="" td=""><td>mg/L</td><td>7/23/2008</td></rl>	mg/L	7/23/2008
Methoxychlor		0.0002	<rl< td=""><td>mg/L</td><td>7/23/2008</td></rl<>	mg/L	7/23/2008
Toraphene		0.0025	<rl< td=""><td>mg/L</td><td>7/23/2008</td></rl<>	mg/L	7/23/2008
TCLP METALS BY	ICP		W1311/8010B	(SW3010A)	Analyst: ET
Arsenic		3.75	<rl< td=""><td>mg/L</td><td>7/23/2008 5:38:02 PM</td></rl<>	mg/L	7/23/2008 5:38:02 PM
Barium	•	75.0	. <rl< td=""><td>mg/L,</td><td>7/23/2008 5:38:02 PM</td></rl<>	mg/L,	7/23/2008 5:38:02 PM
Cadmium		0,750	≺RL.	mg/L	7/23/2008 5:38:02 PM
Chromium		3.75	≪RL	mg/L	7/23/2008 5:38:02 PM
Lead		3.75	<rl.< td=""><td>mg/L</td><td>7/23/2008 5:38:02 PM</td></rl.<>	mg/L	7/23/2008 5:38:02 PM
Selenium		. 0.750	₽L	mg/L	7/23/2008 5:38:02 PM
TCLP MERCURY B	Y VGA		W1311/7470A		Analyst: SU
Mercury		0.0002	₹RL	mg/L	7/21/2008
TCLP SILVER BY	FLAA	5	SW1311/7760A	(SW3010A)	Analyst: ET
Silver		3.75	<₹₹	mg/L	7/24/2008
	TANT-SEMIVOLATILE ORGAN		E625	(SW3510)	Analyst: KM
1,2,4-Titchlorob		625	<rl< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 PM</td></rl<>	µg/L-dry	7/25/2008 9:16:00 PM
1,2-Dichlorober		625	₹L	pg/L-dry	7/25/2008 9:16:00 PM
1,2-Diphenylhyd	_	625	<rl< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 PM</td></rl<>	µg/L-dry	7/25/2008 9:16:00 PM
1,3-Dichlorober		625 .	4 ₹L	pg/L-dry	7/25/2008 9:16:00 PI
1,4-Dichlorober	nzene	625	<rl< td=""><td>µg/L-dry</td><td>7/25/2008 9;16:00 Pt</td></rl<>	µg/L-dry	7/25/2008 9;16:00 Pt
2,4,6-Trichlorop	phenol	625	≪RL	µg/L-dry	7/25/2008 9:16:00 Pt
2.4-Dichloroph	enol	625	₹ ₹L	µg/L-dry	7/25/2008 9:16;00 P
2,4-Dimethylph	nenol	625	<rl< td=""><td>µg/L-dry</td><td>7/25/2006 9:16:00 P</td></rl<>	µg/L-dry	7/25/2006 9:16:00 P
2,4-Dinitropher	nol	625	<rl< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 P</td></rl<>	µg/L-dry	7/25/2008 9:16:00 P
2,4-Dinimalaju	ene	3130	<rl< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 P</td></rl<>	µg/L-dry	7/25/2008 9:16:00 P
2,6-Dinitrololus	ene	625	≺RL	µg/L-dry	7/25/2008 9:16:00 P
2-Chloronapht	halene	625	< ₹ L	pg/L-dry	7/25/2008 9:16:00 P
2-Chloropheno	k	625	<rl< td=""><td>µg/L-dry</td><td>· 7/25/2008 9:16:00 F</td></rl<>	µg/L-dry	· 7/25/2008 9:16:00 F
2-Nitrophenol		625	<rl< td=""><td>µg/t-dry</td><td>7/25/2008 9:16:00 F</td></rl<>	µg/t-dry	7/25/2008 9:16:00 F
3,3'-Dichlorob	enddine	1250	· <rl< td=""><td>µg/L-dry</td><td>7/25/2008 9;16:00 F</td></rl<>	µg/L-dry	7/25/2008 9;16:00 F
4,6-Dinfiro-2-r		3130	∢RL.	µg/L-dry	7/25/2008 9:16:00
4-Bromophen		525	≺RL	yg/L-dry	

MI Analy	tical Services, LLC	La	beratory Results	Date: 04-Aug-l	08
LIENT: roject:	Springfield Metro Sanitary Dis- SMSD Sugar Creek Annual	L		Lab Order:	0807094
RIORITY POLLU 4-Chloro-3-mel	TANT-SEMIVOLATILE ORGANICS hylphenol	625	E625 <rl< td=""><td>(SW3510) µg/L-dry</td><td>Analyst: KM 7/25/2008 9:16:00 PM</td></rl<>	(SW3510) µg/L-dry	Analyst: KM 7/25/2008 9:16:00 PM
4-Chlorophenyl	phenyl ether	625	<rl< td=""><td>pg/L-dry</td><td>7/25/2008 9;16:00 PM</td></rl<>	pg/L-dry	7/25/2008 9;16:00 PM
4-Nitrophenol		3130	≪RL	µg/L-dry	7/25/2008 9:16:00 PM
Acenaphihene		625	<ri_< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 PM</td></ri_<>	µg/L-dry	7/25/2008 9:16:00 PM
Acenaphthylen	ne.	625	<rl< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 PM</td></rl<>	µg/L-dry	7/25/2008 9:16:00 PM
Anthracene		625	<rl< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 PM</td></rl<>	µg/L-dry	7/25/2008 9:16:00 PM
Benz(a)anthra	cene	625	-₹RL	µg/L-dry	7/25/2008 9:16:00 PM
Benzidine		625	≪ય⊾	µg/L-dry	7/25/2008 9:16:00 PM
Benzo(a)pyres	ne ·	625	· <rl< td=""><td>µg∕l⊱dry</td><td>7/25/2008 9:16:00 PM</td></rl<>	µg∕l⊱dry	7/25/2008 9:16:00 PM
Benzo(b)fluor	anlhene	625	<rl< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 PM</td></rl<>	µg/L-dry	7/25/2008 9:16:00 PM
Benzo(g,h,i)p	crylene	625	<rl< td=""><td>µg/L,-dry</td><td>7/25/2008 9:16:00 PM</td></rl<>	µg/L,-dry	7/25/2008 9:16:00 PM
Benzo(k)fluor	anthene	625	<rl< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 PM</td></rl<>	µg/L-dry	7/25/2008 9:16:00 PM
Bis(2-chloroe	thoxyjmethane	1250	<rl< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 PM</td></rl<>	µg/L-dry	7/25/2008 9:16:00 PM
Bis(2-chloroe	thytether	625	<r0.< td=""><td>pg/L-dry</td><td>7/25/2008 9:16:00 PM</td></r0.<>	pg/L-dry	7/25/2008 9:16:00 PM
Bis(2-chlorate	sopropyl)ether	625	<₽L	µg/L-dry	7/25/2008 9;16:00 PM
•	xyl)phthalale	625	<rl< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 PM</td></rl<>	µg/L-dry	7/25/2008 9:16:00 PM
Butyl benzyl	= -:	625	· <rl< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 PM</td></rl<>	µg/L-dry	7/25/2008 9:16:00 PM
Chrysene		625	<₽4	µg/L-dry	7/25/2008 9:16:00 PM
Dibenz(a,h)a	nthrapene	625	<f8l< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 PM</td></f8l<>	µg/L-dry	7/25/2008 9:16:00 PM
Diethyl phtha	alale	625	<rl< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 PM</td></rl<>	µg/L-dry	7/25/2008 9:16:00 PM
Dimethyl phi	thalate	625	<rl< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 PM</td></rl<>	µg/L-dry	7/25/2008 9:16:00 PM
Di-n-budyi pt	uthelate	625	<rl< td=""><td>µg/L-dry</td><td>7/25/2008 9;16:00 PM</td></rl<>	µg/L-dry	7/25/2008 9;16:00 PM
Di-n-octyl pt	dhalate	·625	<rl< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 PM</td></rl<>	µg/L-dry	7/25/2008 9:16:00 PM
Fluoranthen	e	625	<rl< td=""><td>μg/L,-dry</td><td>7/25/2008 9:16:00 PM</td></rl<>	μg/L,-dry	7/25/2008 9:16:00 PM
Fluorene		625	<r1_< td=""><td>pg/L-dry</td><td>7/25/2008 9:16:00 PM</td></r1_<>	pg/L-dry	7/25/2008 9:16:00 PM
Hexachlorul	benzene	625	<rl< td=""><td>pg/L-dry</td><td>7/25/2008 9;16;00 PM</td></rl<>	pg/L-dry	7/25/2008 9;16;00 PM
Hexachloro	buladiene	625	<rl< td=""><td>h8\ri-qu</td><td>7/25/2008 9;15:00 PM</td></rl<>	h8\ri-qu	7/25/2008 9;15:00 PM
Hexachloro	cyclopentadiene	625	<₹₹ <u>↓</u>	D µg/L-dry	7/25/2008 9:16:00 PM
Hexachloro	ethane	625	≪RL	µg/L-dry	7/25/2008 9:16:00 PM
Indeno(1,2,	3-са)ругеле	625	<r1.< td=""><td>µg/L-dry</td><td>7/25/2008 9;16:00 PM</td></r1.<>	µg/L-dry	7/25/2008 9;16:00 PM
Isophorone	•	625	≪RL	. µg/L-dry	7/25/2008 9:16:00 PI
Naphthaler	ne.	625	<શ.	µg/L-dry	7/25/2008 9:16:00 PI
Nitrobenze	ne	625	<rl< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 P</td></rl<>	µg/L-dry	7/25/2008 9:16:00 P
N-Nitrosod	limethylamine	625	<rl< td=""><td>ug/L-dry</td><td>7/25/2008 9:16:00 PI</td></rl<>	ug/L-dry	7/25/2008 9:16:00 PI
	li-n-propylamine	625	<rl< td=""><td>pg/L-dry</td><td>7/25/2008 9:16:00 P</td></rl<>	pg/L-dry	7/25/2008 9:16:00 P

CLIENT: Springfield Metro Sanitary Dist			V 1 A :	
Project: SMSD Sugar Creek Annual	L		Lab Order:	0807094
PRIORITY POLLUTANT-SEMIVOLATILE ORGANICS N-Nitrosodiphenylamine	625	E625	(SW3510)	Analyst: KM
Pentachlorophenol	1250	<rl <rl< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 PM</td></rl<></rl 	µg/L-dry	7/25/2008 9:16:00 PM
Phenanthrene	625	<rl< td=""><td>µg/L-dry</td><td>7/25/2008 9:16:00 PM</td></rl<>	µg/L-dry	7/25/2008 9:16:00 PM
Phenol	625	, <+α. <rl< td=""><td>μg/L-dry</td><td>7/25/2008 9:16:00 PM</td></rl<>	μg/L-dry	7/25/2008 9:16:00 PM
Pyrene	625	≺RL	µg/L-dry µg/L-dry	7/25/2008 9;16:00 PM 7/25/2008 9:16:00 PM
SEMIVOLATILES ORGANICS, YCLP 1,4-Dichlorobenzene	0.100	SW1311/8270C <rl< td=""><td>(SW3550A)</td><td>Analyst: KM 7/26/2008 4;15:00 PM</td></rl<>	(SW3550A)	Analyst: KM 7/26/2008 4;15:00 PM
2,4,5-Trichlarophenol	0.200	≺RL	mo/L	7/26/2008 4:15:00 PM
2,4,6-Trichlorophenol	0.100	<rl< td=""><td>mg/L</td><td>7/26/2008 4:15:00 PM</td></rl<>	mg/L	7/26/2008 4:15:00 PM
2,4-Dinitrotoluene	0,100	<rl< td=""><td>mg/L</td><td>7/26/2008 4:15:00 PM</td></rl<>	mg/L	7/26/2008 4:15:00 PM
Hexachlorobenzene	0,100	<r1_< td=""><td>mg/L</td><td>7/26/2008 4:15:00 PM</td></r1_<>	mg/L	7/26/2008 4:15:00 PM
Hexachlorobuladiene	0.100	<rl< td=""><td>mg/L</td><td>7/26/2008 4:15:00 PM</td></rl<>	mg/L	7/26/2008 4:15:00 PM
Herachloroethane	0.100	<rl< td=""><td>mg/L</td><td>7/26/2008 4:15:00 PM</td></rl<>	mg/L	7/26/2008 4:15:00 PM
Nilmbenzene	0.100	<rl< td=""><td>mg/L</td><td>7/26/2008 4:15:00 PM</td></rl<>	mg/L	7/26/2008 4:15:00 PM
Penlachlorophenol	0.100	<rl m<="" td=""><td>ng/L</td><td>7/26/2008 4;15:00 PM</td></rl>	ng/L	7/26/2008 4;15:00 PM
Pyridine	0,200	≺RL	mg/L	7/26/2008 4:15:00 PM
Cresols, Total	0,200	<rl< td=""><td>rng/L:</td><td>7/26/2008 4:15:00 PM</td></rl<>	rng/L:	7/26/2008 4:15:00 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		E624		260B) Analyst; GV
1,1,1-Trichloroelhane	123	≪RL	hayka-qry	7/20/2008
1,1,2,2-Tetrachloroethane	123	<rl.< td=""><td>pg/Kg-dry</td><td>7/20/2008</td></rl.<>	pg/Kg-dry	7/20/2008
1,1,2-Trichloroethane	123	. <rl< td=""><td>µg/Kg-dry</td><td>7/20/2008</td></rl<>	µg/Kg-dry	7/20/2008
1,1-Dichloroethane	123	<rl< td=""><td>µg/Kg-dry</td><td>7/20/2008</td></rl<>	µg/Kg-dry	7/20/2008
1,1-Dichloroethene	123	≺RL	hô/kg-qu	7/20/2008
1,2-Dichloroethane	123	<rl< td=""><td>µg/Kg-dry</td><td>7/20/2008</td></rl<>	µg/Kg-dry	7/20/2008
1,2-Dichloropropane	123	^ <rl,< td=""><td>µg/Kq-dry</td><td>7/20/2008</td></rl,<>	µg/Kq-dry	7/20/2008
2-Chloroethyl vinyl ether	308	<rc.< td=""><td>µg/Kg-dry</td><td>7/20/2008</td></rc.<>	µg/Kg-dry	7/20/2008
Acrolein	30,8	4RL ~~	haka-qu	7/20/2008
Acrylonitrile	61.6	≺RL	pg/Kg-dry	7/20/2008
Benzenè	123	<rl< td=""><td>µg/Kg-d₁y</td><td>7/20/2008</td></rl<>	µg/Kg-d₁y	7/20/2008
Bromoform	. 123		µg/Kg-dry	7/20/2008
Carbon tetrachloride	123	- · · -	р 9/Кg-dry	7/20/2008
Chlorobenzene	123	4	µg/Kg-dry	7/20/2008
Chloroditromomethane	123	. ≺RL	hê _l kā-qiλ	7/20/2008
Chloroethane	123	ા ⊲રા	µg/Kg-dry	7/20/2008
Chloroform	123	s ⊲RL	µg/Kg-dry	7/20/2008

TMI Ana	lytical Services, LLC	:	Laboratory Results	Dute: 04-Aug-	
CLIENT: Project:	Springfield Metro Sanitary Dist. SMSD Sugar Creek Annual			· Lab Order:	0807094
VOLATILE ORG	GANIC COMPOUNDS BY GC/MS Igropropene	123	E624 <rl< td=""><td>(SW5035/826 µg/Kg-dry</td><td>0B) Analyst GV 7/20/2008</td></rl<>	(SW5035/826 µg/Kg-dry	0B) Analyst GV 7/20/2008
Dichlorobror	momethane	123	<rl< td=""><td>µg/Kg-dry</td><td>7/20/2008</td></rl<>	µg/Kg-dry	7/20/2008
Ethylbenzen	ne	123	<rl.< td=""><td>µg/Kg-dry</td><td>7/20/2008</td></rl.<>	µg/Kg-dry	7/20/2008
Methyl Bron	nide	123	₹RL	yg/Kg-dry	7/20/2008
Methyl Chic	ride	123	<rl< td=""><td>µg/Kg-dry</td><td>7/20/2008</td></rl<>	µg/Kg-dry	7/20/2008
Methylene o	chloride	308	<rl< td=""><td>µg/Kg-dry</td><td>7/20/2008</td></rl<>	µg/Kg-dry	7/20/2008
Telrachloro	ethene	123	<ri∟< td=""><td>µg/Kg-dry</td><td>7/20/2008</td></ri∟<>	µg/Kg-dry	7/20/2008
Toluene		123	<rl< td=""><td>µg/Kg-dry</td><td>7/20/2008</td></rl<>	µg/Kg-dry	7/20/2008
trans-1,2-0	ichloroethene	123	⊲રા∟	μη/K g-dry	7/20/2008
trans-1,3-D	Ichloropropene	123	· <rl< td=""><td>µg/Kg-dry</td><td>7/20/2008</td></rl<>	µg/Kg-dry	7/20/2008
Trichloroell	hene	123	<rl< td=""><td>µg/Kg-dry</td><td>7/20/2008</td></rl<>	µg/Kg-dry	7/20/2008
Vinyl chlori	de	123	<f1.< td=""><td>μα/Κα-dry</td><td>7/20/2008</td></f1.<>	μα/Κα-dry	7/20/2008
VOLATILES, 1 1,1-Dichlor		0.002	SW1311/8260B <pl< td=""><td>(SW1311) mg/L</td><td>Analyst: GV 7/24/2008</td></pl<>	(SW1311) mg/L	Analyst: GV 7/24/2008
1,2-Dichlor	roethane	0.002	₹ ₹	mg/L	7/24/2008
2-Butanon	e	0,005	0,013	mg/L	7/24/2008
Benzene		0,002	<₽L	ing/L	7/24/2008 .
Carbon let	trachloride	0.002	<rl< td=""><td>mg/L</td><td>7/24/2008</td></rl<>	mg/L	7/24/2008
Chloroben	zene	0.002	<rl< td=""><td>mg/L</td><td>7/24/2008</td></rl<>	mg/L	7/24/2008
Chloroforn	n	0.002	<rl< td=""><td>mg/L</td><td>7/24/2008</td></rl<>	mg/L	7/24/2008
Tetrachion	oethene	0.002	<1₹L	mg/L	7/24/2008
Trichloroe	ihene .	0.002	<rl.< td=""><td>mg/L</td><td>7/24/2008</td></rl.<>	mg/L	7/24/2008
Vinyl chio	ride .	0,002	≺શ∟	mg/L	7/24/2008

D2974/SM2540G

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%

8 of 8

Analyst: J\$

7/21/2008

7/21/2008

63.02

0.5

PERCENT MOISTURE

Percent Moisture

Percent Solids

CHAIN OF CUSTODY

Il Analytical Services, 1.1.C	vices, 1.1.	ر ن		DESC	DESCRIPTION		METALS		MICROBIOLOGY	LOGY			ORGANICS	NICS					8	NERA	LCHE	GENERAL CHEMISTRY	l ≿				DUE DATE
2110 Republic Street Springfield, Illinois 62702 (217) 698-0642 FAX (217)698-0656 Uni@tmilab.com OJECT L. OJECT L. OJECT L. OJECT L. OJECT L. OJECT L. OJECT L. OJECT L. OJECT L. OJECT L. OJECT L. OJECT L. OJECT L. OJECT C. ONE. 217-528-0497 A.L. A.L.	2702 AX (217)698-0656 Springfield Metro SD d	Metro SD	PPOCO	anos	AQUEOUS	te HNO.	EXT. TOTAL DISSOLVED TCLP X.	DAVORDIM RIA = MA BAW2 = 8	BACTERIAL PLATE CNTS. TOTAL SELECTIVE	FUNGI: QUELFORMS / ECOLI	ETEX: 8021B, 8250B, 5035, MTBE (OROLE)	EPA 624 / 8260B VOLATILE ORGANICS	EPA 826 / 8270C 6EMI - YOLATILE ORGANICS (ENA's) EAA 626 / 8270C PNA's	EPA 8151 CHLORINATED HERBICIDES	TCLP: (CIRCLE) ORGANICS, VOLATILE, PESTAHERB	(3JORIO) SAO NAO HATI RISHITO	RETTI THAY	M YTLJBATINGNTNIO9HEAJT	OIL AND GREASE	GYANIDE: TOTAL REACTIVE (CIRCLE)	DHENO R8	% solids %	NITROGEN • TKM, Mivale PHOSPHOROUS, Bray	BOD (SDAY)	Cond, Cation Exc.	SABINATION SE SEMPLE CONTRINERS	
SAMPLE NO.	DATE	JME (LAB NO.						ļ	*		₩1-	H	ļ		•		∦	#	#	•		₩.		∦	*** 01	REMARKS
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Wednesday, July 22, 2009

Greg Fraase

Springfield Metro Sanitary District 3017 North 8th Street Springfield, IL 62707

TEL: (217) 528-0491 FAX: (217) 528-0497

RE: Sugar Creek Annual

PAS WO: 09G0307

Prairie Analytical Systems, Inc. received 3 sample(s) on 7/10/2009 for the analyses presented in the following report.

All applicable quality control procedures met method specific acceptance criteria unless otherwise noted.

This report shall not be reproduced, except in full, without the prior written consent of Prairie Analytical Systems, Inc.

If you have any questions, please feel free to contact me at (217) 753-1148.

Respectfully submitted,

aica D. Treadwarf

Erica D. Treadway

Project Manager

Certifications:

NELAP/NELAC -# 100323.

Client:

Springfield Metro Sanitary District

Project:

Sugar Creek Annual

Lab Order: 09G0307

Client Sample ID:

Influent 7/10/09 10:05

Lab ID: 09G0307-01

7/10/09 10:05 R ds by GC-MS	tesult U	Limit	Qual	Units	D	Matrix	: Water	d Mathod	Analys
	U	Limit	Qual	Units		F Date Preps	ed Dale Analyze	d Method	Anslue
ds by GC-MS									- Autory
		50,0		րջ/Լ	ī	7/16/09 18	:58 7/17/09 0:4	2 EPA 624	JKA
	ប	50.0		μg/L	1	7/16/09 18			JKA
	U	5.00		μg/L	[7/16/09 18			ΓΚΑ
	U	5.00		μg/L	1	7/16/09 18			JKA
•	Ü	5.00		µg/L	1	7/16/09 18			JKA
•	U	5.00		μg/L	1	7/16/09 18			JKA
	U	5,00		μg/L	1	7/16/09 18			JKA
	U	5,00		μg/L	1	7/16/09 18			JKA
	U	5.00		µg/L	I	7/16/09 18:			JKA
	U	5.00		μg/L	1	7/16/09 18:			JKA
	U	5.00		μg/L	t	7/16/09 18:			JKA
									- JKA
									JKA
							_		JKA
						•			JKA
									JKA
				•					JKA
									JKA
					-				JKA
									JKA
									JKA
	-			-					JKA
									JKA
									JKA
1	ľ								JKA
1	Ü			• -					JKA
τ	I								JKA
Į	ſ	5.00							JKA
ι	j	5.00		ha/r	1			EPA 624	JKA
ands by GC-MS								•	
Ŭ	J	11.2			1	7/14/09 14:39	7/16/09 21:56	EPA 625	CJM
บ	J	11.2			1	7/14/09 14:39			CIM
υ	J	11.2		μg/L	1	7/14/09 14:39	7/16/09 21:56		CIM
ט	l	11.2			1		7/16/09 21:56		CIM
ប		11.2			ī				CJM
บ	!	11.2			ì			-	CIM
บ					1				CIM
ប					1				CIM
									CJM
									CIM
									CIM
									CIM
									CJM
									CJM
									CJM
									CJM
									CIM CIM
	ands by GC-MS U U U U	บบบบบบบบบบบบบบบบบบบบบบบบบบบบบบบบบบบบบ	U 5.00 U	U 5.00 U	U 5.00 µg/L U 11.2 µg/L U 11.2 µg/L	U 5.00	U 5.00	U 5.00	U 5.00

LABORATORY RESULTS

Client:

Springfield Metro Sanitary District

Project:

Sugar Creek Annual

Lab Order: 09G0307

Client Sample ID:

Influent

Lab ID: 09G0307-01

Collection Date:	7/10/09 10:05			•			Matrix:	Water		
Analyses	/	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
4-Chlorophenyl phenyl other		U	11.2		μg/L	t	7/14/09 14:39	7/16/09 21:56	EPA 625	CJM
Chrysene		υ	11.2		μg/L	1	7/14/09 14:39	7/16/09 21:56	BPA 62 5	CIM
Di-n-butyl phthelate		U	11.2		ħδ\Γ	1	7/14/09 14:39	7/16/09 21:56	EPA 625	CJM
Di-n-octyl phthalate		υ	11.2		μg/L	1	7/14/09 14:19	7/16/09 21:56	BPA 625	CIM
Dibenz(a,h)anthracene		U	11,2		μg/L	1	7/14/09 14:39	7/16/09 21:56	BPA 625	CIM
1,2-Dichlarobenzene		U	11.2		μg/L	l	7/14/09 14:39	7/16/09 21:56	EPA 625	CIM
I,3-Dichlorobenzene		IJ	11.2		μ g/ L	1	7/14/09 14:39	7/16/09 21:56	EPA 625	СЛМ
1,4-Dichlorobenzene		U	11.2		μg/L	1	7/14/09 14:39	7/16/09 21:56	EPA 625	CIM
3,3'-Dichlorobenzidine		IJ	22,5		μg/L	1	7/14/09 14:39	7/16/09 21:56	EPA 625	CJM
2,4-Dichlorophenol		Ü	11.2		μg/L	I	7/14/09 14:39	7/16/09 21:56	EPA 625	CJM
Diethyl phthalate		U	11.2		րջ/Ն	1	7/14/09 14:39	7/16/09 21:56	EPA 625	CIM
Dimethyl plithalate		Ŭ	11.2		μg/L	ı	7/14/09 14:39	7/16/09 21:56	EPA 625	CIM
2,4-Dimethylphenol		Ú	11.2		μg/L	ι	7/14/09 [4:39	7/16/09 21:56	BPA 625	CIM
4,6-Dinitro-2-methylphenol		Ü	56.2		μg/L	1	7/14/09 14:39	7/16/09 21:56	EPA 625	CIM
2,4-Dinitrophenol		ប	56,2		μg/L	1	7/14/09 (4:39	7/16/09 21:56	EPA 625	CIM
2,4-Dinitrotoluens		U	11.2		µg/L	1	7/14/09 14:39	7/16/09 21:56	EPA 625	CJM
2,6-Dinitrotoluens	,	ប	11.2		μβ/Γ	I	7/14/09 14:39	7/16/09 21:56	EPA 625	CJM
1,2-Diphenylhydrazine		U	11.2		μg/L	1	7/14/09 14:39	7/16/09 21:56	EPA 625	CJM
Fluoranthene		U	11,2		μg/L	I	7/14/09 14:39	7/16/09 21:56	EPA 625	CIM
Fluorene		U	11.2		μg/L	f	7/14/09 14:39	7/16/09 21:56	EPA 625	CJM
Hexachiorobenzene		U	11,2		μg/L	1	7/14/09 14:39	7/16/09 21:56	EPA 625	, СЛМ
Hexachlorobutadiene		U	11.2		μg/L	1	7/14/09 14:39	7/16/09 21:56	EPA 625	CJM
Hexachlorocyclopentadiene		U	11.2		hB/L	Ŀ	7/14/09 14:39	7/16/09 21:56	EPA 625	СЛМ
Hexachloroethane		U	11.2		μ <u>ε</u> /Ն	1	7/14/09 14:39	7/16/09 21:56	EPA 625	CIM
Indeno(1,2,3-cd)pyrene		U	11.2		μ g/L	1	7/14/09 [4:39	7/16/09 21:56	· EPA 625	CJM '
Isapharene		U	11,2		μg/L	I	7/14/09 14:39	7/16/09 21:56	EPA 625	CJM
Naphihalene		U	11.2		µg/L	į	7/14/09 14:39	7/16/09 21:56	EPA 625	CJM
Nitrobenzene		บ	11.2		µg∕L	1	7/14/09 14:39	7/16/09 21:56	EPA 625	CIM
N-Nitroso-di-n-propylamine		บ	11.2		µg/L	i	7/14/09 14:39	7/16/09 21:56	EPA 625	CIM
N-Nitrosodimethylamine		U	11.2		µg/L	1	7/14/09 14:39	7/16/09 21:56	EPA 625	CJM
N-Nitrosodiphenylamine		U	11.2		µg/Ľ	l	7/14/09 14:39	7/16/09 21:56	EPA 625	CJM
2-Nitrophenol		U	11.2		μջ/Ն	1	7/14/09 14:39	7/16/09 21:56	EPA 625	CJM
4-Nitrophenol		U	56.2		μg/L	1	7/14/09 14:39	7/16/09 21:56	EPA 625	CIM
Pentachlorophenol		U	56.2		μg/L	Į	7/14/09 14:39	7/16/09 21:56	EPA 625	CIM
Phenanthrene		Ū	11.2		h®∕_Г	l	7/14/09 14:39	7/16/09 21:56	EPA 625	CIM
Phenol		U	11.2		μg/L	1	7/14/09 14:39	7/16/09 21:56	EPA 625	СЛМ
Pyrene		U	11.2		μg/L .	1	7/14/09 14:39	7/16/09 21:56	EPA 625	СЛМ
1,2,4-Trichlorobenzene		ប	11.2		μg/L	I	7/14/09 [4:39	7/16/09 21:56	BPA 625	CIM
2,4,6-Trichlorophenol		U	11.2		μg/Ľ	l	7/14/09 14:39	7/16/09 21:56	EPA 625	CJM
rganochlorine Pesticides by G	C-ECD									
*Aldrin		บ	0.0543		μg/Ľ	i	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*alpha-BHC		υ	0.0543		μ g /L	1	7/14/09 15:40	7/15/09 20:58	SW 8081A	8DP
*beta-BHC		V	0.0543		μg/L	1	7/14/09 15:40	7/15/09 20:58	A1808 WZ	BDP
*delta-BHC		U	0.0543		μg/L	i	7/14/09 15:40	7/15/09 20:58	SW 808 IA	BDP
*gamma-BHC		U	0.0543		μg/L	j	7/14/09 15:40		SW 808 IA	BDP
*Chlordane (total)		ŭ	2.17		μg/L	1	7/14/09 15:40		SW 8081A	BDP
*4,4'-DDD		บั	0.0543		μg/L	1	7/14/09 15:40		SW 8081A	BDP
'4.4'-DDE		υ	0.0543		μg/L	i	7/14/09 15:40		A1808 WZ	BDP
4.4'-DDT		บ	0.217		րջ/Ն	1	7/14/09 15:40		A 808 W 2	BDP
.,			-		1.0 =	-				

LABORATORY RESULTS

Client:

Springfield Metro Sanitary District

Project: Client Sample ID: Sugar Creek Annual

Lab Order: 09G0307

Influent

Lab ID: 09G0307-01

Collection Date: 7/10/09 10:05

Matrix: Water

Collection Date:	כטיטן עטעטוע					Matrix: W	/ater		
Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
*Dieldrin	U	0.0543		μg/Ľ	1	7/14/09 [5:40	7/15/09 20:58	SW 8081A	BDP
*Endosulfan I	Ŭ	0.0543		μg/L	1	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*Endosulfan II	ט	0.0543		µg/L	1	7/14/09 15:40	7/15/09 20:58	A1808 W2	BDP
*Endosulfan sulfate	Ū	0.0543		μ g/ L	ı	7/14/09 15:40	7/15/09 20:58	A1808 WE	BDP
*Endrin	U	0.0543		μg/L	ŧ	7/14/09 15:40	7/15/09 20:58	SW-8081 A	BDP
*Endrin aldehyde	U	0.163		μg/L	ī	7/14/09 15:40	7/15/09 20:58	A1808 WZ	BDP
*Heptachlor	U	0.109		μg/L	I	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*Heptachlor epoxide	U	0.0543		μg/L	ŧ	7/14/09 15:40	7/15/09 20:58	SW 8081 A	BDP
*Methoxychlor	ľ	0.109		μg/L	1	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*Toxaphene	ŭ	3.26		µ g ∕L	1	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
Polychlorinated Biphenyls by G	C-ECD								
*Araclar 1016	U	0,543		μg/L	1	7/14/09 16:01	7/16/09 16:03	SW 8082	BDP
*Araelar 1221	U	0,543		μg/L	1	7/14/09 16:01	7/16/09 16:03	SW 8082	BDP
*Aroclor 1232	Ŭ	0,543		μg/L	1	7/14/09 16:0L	7/16/09 16:03	SW 8082	BDP
*Aroclor 1242	ប	0.543		μg/L	1	7/14/09 16:01	7/16/09 16:03	SW 8082	BDP
*Arocior 1248	Ŭ	0.543		μg/L	ŧ	7/14/09 16:01	7/16/09 16:01	SW 8082	BDP ·
*Aractor 1254	บ	0.543		µg/L	1	7/14/09 16:01	7/16/09 16:03	SW 8082	BDP
*Aroclor 1260	υ	0.543		μg/L	1	7/14/09 16:01	7/16/09 16:03	SW 8082	BDP

Page 4 of 13

Client:

Springfield Metro Sanitary District

Project:

Client Sample ID:

Collection Date:

Sugar Creek Annual

Effluent

7/10/09 10:20

Lab Order: 09G0307

Lab ID: 09G0307-02

Matrix: Water

Conection Date.		-4			Winter.			
Analyses	Result	Limit	Qual Unit	DF	Date Prepared	Date Analyzed	Method	Analys
Volatile Organic Compoun								
Acrolein	U	50.0	μg/L	1	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
Acrylonitrile	U	50.0	μg/L	1	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
Benzene	U	5.00	μ g/ L	1	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
Bromodichloromethane	U	5.00	μ g /L	1	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
Bromoform	U	5.00	µg/L	1	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
Bromomethane	U	5.00	μg/L	ĺ	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
Carbon tetrachloride	ប	5.00	11g/L	1	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
Chlorobenzene	ប	5.00	μg/L	1	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
Chloroethane	ט	5.00	μg/L	ı	7/16/09 18:58	7/17/09 1:12	EPA 624	ЛΚА
2-Chloroethyl vinyl ether	U	5.00	μg/L	1	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
Chloroform	บ	5.00	µg/L	t	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
Chloromethane	U	5.00	μ g /Ն	1	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
Dibromochloromethane	υ	5.00	μ ջ /Ն	I	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
1,1-Dichloroethane	ប	5.00	μ g/ L	t	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
1,2-Dichloroethane	ប	5,00	μg/L	1	7/16/09 [8:58	7/17/09 1:12	EPA 624	JKA
I, I-Dichloroethene	U	5.00	րք/Ն	1	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
trans-1,2-Dickloroethene	υ	5.00	μg/L	1	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
1,2-Dichloropropane	U	5.00	μg/L	}	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
cis-1.3-Dichloroprogene	U	5.00	μg/L	1	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
trans-1,3-Dichloropropane	v	5.00	. ng∕L	1	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
Ethylbenzene	บ	5.00	μ δ /Γ	i	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
Methylene chloride	บ	5.00	μ g /L	1	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
1,1,2,2-Tetrachloroethane	U	5.00	μ g /L	1	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
Tetrachloroethene	. ນ	5.00	μg/L	1	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
Toluene	υ	5.00	µg∕L	i	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
t, I, I-Trichloroethane	ប	5.00	µg∕L	ι	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
1.1.2-Trichloroethane	υ	5.00	μg/L	1	7/16/09 18:58	7/17/09 1:12	EPA 674	JKA
Trichloroethene	U·	5,00	μ g /L	I	7/16/09 18:58	7/17/09 1:12	EPA 624	JKA
Vinyl chloride	u	5.00	h g /L	- 1	7/20/09 12:52	7/20/09 14:07	EPA 624	JKA
mi-Volatile Organic Compo	ounds by GC-MS				,		,	
Acenaphthene	บ	11.2	µg/L	i	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
Acenaphthylene	U	11.2	μ g /Ն	1	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
Anthracens	U	11.2	μg/L	1	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
Benzidiae	บ	11.2	μ g/ L	i	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
enzo(a)anthracene	ប	11.2	μg/L	1	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
Benzo(b)fluoranthens	ប	11.2	μ g/ L	1	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
lenzo(k)fluoranthene	Ü	11.2	μg/L	ı	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
Benzo(g,h,i)perylene	U	11.2	µg∕L	1	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
enzo(a)pyrene	υ	11.2	µg/L	1	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
is(2-chloroethoxy)methane	U	11.2	μg/Ľ	ī	7/14/09 14:39	7/17/09 14:34	EPA 625	СЛМ
is(2-chloroethyl)ether	υ	11.2	μg/L	i	7/14/09 14:39	7/17/09 14:34	EPA 625	СЛМ
is(2-chloroisopropyl)ether	บ	11.2	h8√Γ	i	7/14/09 14:39	7/17/09 [4:34	EPA 625	CJM
is(2-ethylhexyl)phthalate	209	56.2	μg/L	5	7/14/09 14:39	7/20/09 1:10	EPA 615	CIM
Bromophenyl phenyl ether	ប	11.2	μg/L	i	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
	บ	11.2	րջ/L	ı	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
utyl benzyl phthalate	U	22.5		1				
-Chioro-3-methylphenol			µg∕L u=⊄		7/14/09 14:39		EPA 625	СЛ
-Chloronaphthalene	ប	11,2	µg∕L.	1	7/14/09 [4:39		EPA 625	CIM
·Chlorophenol	ប	11.2	µg/L	l	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM

LABORATORY RESULTS

Client:

Springfield Metro Sanitary District

Project:

Sugar Creek Annual

Client Sample ID: Collection Date:

Effluent

Lab Order: 09G0307

Lab ID: 09G0307-02

7/10/09 10:20 Matrix: Water

Consection Date: "107	05 10.20					Matrix:	water		
Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyze	i Method	l Analys
4-Chlorophenyl phenyl ether	Ū	11.2		ug/L	1	7/14/09 [4:39	7/17/09 14:34	EPA 625	CJM
Chrysene	บ	11.2		μg/L	1	7/14/09 [4:39	7/17/09 14:34	EPA 625	CJM
Di-n-butyl phthalate	ซ	11,2		μg/L	ı	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
Di-n-ocryi phthalate	U	11.2		µg/L	1	7/14/09 14:39	7/17/09 14:34		CJM
Dibenz(a,h)anthracene	บ	11.2		μg/L	1	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
1,2-Dichlorobenzene	U	11.2		μg/L	ı	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
1,3-Dichlorobenzene	บ	11.2		µgz/L	1	7/14/09 14:39	7/17/09 14:34		CJM
1,4-Dichlorobenzene	U	11.2		μg/L	1	7/14/09 [4:39	7/17/09 14:34		CIM
3,3'-Dichlorobenzidine	U	22.5		μg/L	1	7/14/09 [4:39	7/17/09 14:34		CJM
2,4-Dichlorophenol	υ	11.2		µg/L	1	7/14/09 14:39	7/17/09 14:34	BPA 625	CIM
Diethyl phthalate	U	11.2		μg/L	1	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
Dimethyl phthelate	ប	11.2		μg/L	i	7/14/09 14:39	7/17/09 14:34	BPA 625	СЛМ
2,4-Dimethylphenol	U	(1.2		μg/L	1	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
4,6-Dinitro-2-methylphenol	ប	56.2		μg/L	i	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
2,4-Dinitrophenol	ប	56.2		μg/L	i	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
2,4-Dinitrotoluene	Ü	11.2		μg/Ľ	i	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
2,6-Dinitrataluene	บ	11.2		μg/L	i	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
1,2-Diphenylhydrazine	U	[1,2		µg/L	i	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
Fluoranthene	ប	11.2		μg/L	1	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
Fluorens	U	11.2		μg/L	1	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
Hexachlorobenzene	ช	11.2		μg/L	i	7/14/09 14:39	7/17/09 14:34	EPA 625	СЛМ
Hexachlorobutadiene	U	11.2		μg/L	1	7/14/09 14:39	7/17/09 14:14	EPA 625	CJM
Hexachlorocyclopentadiene	ប	11.2		īā/Ľ	ŧ	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
Hexachloroethane	U	11.2		ıg/L	i	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
Indeno(1,2,3-cd)pyrene	ប	11,2		ıg/L	1	7/14/09 14:39	7/17/09 14:34	EPA 625	СЛМ
Isophorone	U	11.2		g/L	. 1	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
Naphthalene	บ	11.2		g/L	1	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
Nitrobenzene	บ	11.2	-	g/L	t	7/14/09 14:39	7/17/09 14:14	EPA 625	CIM
N-Nitroso-di-n-propylamine	บ	11,2	•	g/L	ľ	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
N-Nitrosodimethylamine	ប	11.2		g/L	1	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
N-Nitrosodiphenylamine	ប	11,2	-	g/L	Ī	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
2-Nitrophenol	บ	11,2		8/L	1	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
4-Nitrophenol	υ	56.2		g/L	1	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
Pentachlorophenol	ប	56,2		g/L	ĺ	7/14709 14:39	7/17/09 14:34	EPA 625	CJM
Phenanthrene	บ	11,2		y_ _	i	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
Phenol	บ	11.2		2/L	1	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
Pyrene	ΰ	11.2		γ/L	i	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
2,4-Trichlorobenzene	Ū	11,2		/L	i	7/14/09 14:39	7/17/09 14:34	EPA 625	CIM
2,4,6-Trichlorophenol	. Մ	11,2	րք		i	7/14/09 14:39	7/17/09 14:34	EPA 625	CJM
ganochlarine Pesticides by GC-ECI									
Aldrin	U	0.0556	μg	/L	ı	7/14/09 15:40	7/15/09 20:58	SW 8081A	BD?
alpha-BHC	ับ	0,0556	hã		i	7/14/09 15:40		SW 8081A	BDP
beta-BHC	ប	0.0556	កន		i	7/14/09 15:40		A1808 WE	BDP
ielta-BHC	Ü	0.0556	ከ ው ኡዯ		ì	7/14/09 15:40		SW 8081A	BDP
gamma-BHC	ט	0.0556	ክል ትጭ		1	7/14/09 15:40			
Chlordane (total)	ŭ	2.22			1	7/14/09 15:40		A1808 W2	8D2
.4'-DDD	บ	0.0556	ከ 8∖ ከ8∖		1			A1808 WZ	BD?
.4'-DDE	บ	0.0556			-	7/14/09 15:40		A 1808 WZ	BDP
-			μ g /		1	7/14/09 [5:40		A1808 W2	BOP
1,4'-DDT	ប	0.222	μg/	L	į	7/14/09 15:40	7/15/09 20:58	A1808 W2	80

LABORATORY RESULTS

Client:

Springfield Metro Sanitary District

Project:

Sugar Creek Annual

Effluent

Lab Order: 09G0307

Client Sample ID:	Effluent						Lab ID: 09	G0307-02		
Collection Date:	7/10/09 10:20						Matrix: W	ater		
Analyses		Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method _	Analyst
*Dieldrin		U	0.0556		μg/L	ĺ	7/14/09 15:40	7/15/09 20:58	A 1808 WE	BDP
Endosulfan I		U	0.0556		μg/L	I	7/14/09 15:40	7/15/09 20:58	A1808 WZ	BDP
*Endosulfan II		U	0.0556		µg/L	I	7/14/09 15:40	7/15/09 20:58	A1808 W2	BDP
*Endosulfan sulfate		U	0.0556		μg/L	1	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*Endrin		Ū	0.0556		μg/L	1	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*Endrin aldehyde		Ü	0.167		μg/L	1	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*Heptachlor		IJ	0.111		μg/L	1	7/14/09 15:40	7/15/09 20:58	A1808 W2	BDP
*Heptachlor epoxide		U	0.0556		µg/L	1	7/14/09 15:40	7/15/09 20:58	SW 8081Á	BDP
Methoxychlor		U	0.111		μg/L	I	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*Toxaphene		U	3.33		μg/L	1	7/14/09 15:40	7/15/09 20:58	A1808 WZ	BDP
Polychlorinated Bipheny	is by GC-ECD			•					•	
*Arcelor 1016		ប	0.556		μg/L	1	7/14/09 16:01	7/16/09 16:03	SW 8082	BDP
*Aroclor 1221	•	U	0.556		μg/Ľ	.i	7/14/09 16:01	7/16/09 16:03	SW 8082	BDP
*Arociar 1232		U	0.556		μg/L	i	7/14/09 [6:0]	7/16/09 [6:03	SW 8082	BDP
*Aroclar 1242		Ū	0.556		μg/L	I	7/14/09 16:01	7/16/09 16:01	SW 8082	BDP
*Aroclor 1248	•	บ	0.556		μg/L	ı	7/14/09 16:01	7/16/09 16:03	SW 8082	BDP
*Araclor 1254		บ	0.556		μg/L	1	7/14/09 16:01	7/16/09 16:03	SW 8082	BDP
*Aroclor 1260		U	0.556		μg/L	1	7/14/09 16:01	7/16/09 16:03	SW 8082	BDP

LABORATORY RESULTS

Client:

Springfield Metro Sanitary District

Project:

Sugar Creek Annual

Lab Order: 09G0307

Client Sample ID:

Sludge

Lab ID: 09G0307-03

	p
Collection	Date:

7/10/09 10:20

Matrix: Sludge

Collection Date:	1/10/09 10:20						Matrix:	0,4034		
Analyses		esult	Limit	Qual	Units	DF	Date Prepared	Date Analyze	d Method	Ana
Volatile Organic Compound	ds by GC-MS									
Acrolein		Ü	2500		µg/L	50	7/21/09 10:55	7/22/09 13:2	3 SW 8260B	BD
Acrylonitrile		Ŭ	.2500		րջ/Ն	50	7/21/09 10:55	7/22/09 13:2	3 SW 8260B	BD
Benzene		U	250		μg/L	50	7/21/09 10:55	7/22/09 13:2:	3 SW 8260B	BD
Bromodichloromethane		U	250		µg/L	50	7/21/09 10:55	7/22/09 13:2:		BD
Bromoform		U	250		μ g/ L	50	7/21/09 10:55		3 SW 8260B	BD
Bromomethans		U	490		μg/L	50	7/21/09 10:55	7/22/09 13:23	SW 8260B	BD
Carbon tetrachloride		U	250		иg/L	50	7/21/09 10:55	7/22/09 13:23		BD
Chlorobenzene	•	Ü	250		µg/L	50	7/21/09 10:55		SW 8260B	BD
Chloroethane		U	500		μg/L	50	7/21/09 10:55	7/22/09 13:23	SW 8260B	BD:
2-Chloroethyl vinyl ether		U	250		µg/L	50	7/21/09 10:55	7/22/09 [3:23	SW 8260B	BD
Chloroform		ប	250		μg/L	50	7/21/09 10:55	7/22/09 13:23		BDI
Chloromethane		U	500		μ g/ L	<i>\$</i> 0	7/21/09 10:55	7/22/09 13:23		BDI
Dioromochloromethane		U	250		μg/L	50	7/21/09 10:55	7/22/09 13:23	SW 8260B	BDI
1,1-Dichloroethane		U	250		μg/Ն	50	7/21/09 10:55	7/22/09 13:23	SW 8260B	BDF
1,2-Dichloroethane		U	250		μg/L	50	7/21/09 10:55	7/22/09 13:23	SW \$260B	BDI
1,1-Dichloroethene		Ü	250		μg/L,	50	7/21/09 10:55	7/22/09 13:23	SW 8260B	BDE
trans-1,2-Dichloroethene		U	250		μg/L	50	7/21/09 10:55	7/22/09 [3:23	SW 8260B	BD
1,2-Dichloropropane		U	250		μg/L	50	7/21/09 10:55	7/22/09 [3:23	SW 8260B	BDF
cis-1,1-Dichloropropene		Ü	250		μg/L	50	7/21/09 10:55	7/22/09 13:23	SW 8260B	BDF
trans-1,3-Dichloropropene	1	บ	250		μg/L	50	7/21/09 10:55	7/22/09 13:23	SW 8260B	BDP
Sthylbenzene	· · · · · · · · · · · · · · · · · · ·	Ü	250		μg/L	50	7/21/09 10:55	7/22/09 13:23	SW 8260B	BOP
viethylene chloride	ı	IJ	250		μg/L	50	7/21/09 10:55	7/22/09 13:23	SW 8260B	BDP
, 1, 2, 2-Tetrachloroethane	ſ	J	250		μg/L	50	7/21/09 10:55	7/22/09 13:23	SW 8260B	BDP
etrachloroethene	τ	J	250		μg/L	50	7/21/09 10:55	7/22/09 13:23	SW 8260B	BDP
oluens	t	j	250		μg/L	50	7/21/09 10:55	7/22/09 13:23	SW 8260B	BDP
, 1, 1-Trichloroethane	t	j	250		μg/Ĺ	50	7/21/09 10:55	7/22/09 [3:2]	SW 8260B	BDP
1,2-Trichloroethane	Ľ	Į	250		μg/L	50	7/21/09 10:55	7/22/09 13:23	SW 8260B	BDP
richloroethene	C	1	250		μg/L	50	7/21/09 10:55	7/22/09 13:23	SW 8260B	BDP
inyl chloride	U	ī	250		µg/L	50	7/21/09 10:55	7/22/09 13:23	SW 8260B	BDP
LP Valatile Organic Compo	unds by GC-MS		•		•					
Benzene	U		125		μ <u>ε</u> /L	5	7/14/09 13:08	7/15/09 5:20	SW 8260B	BDP
?-Butanone	υ		125		μg/L	5	7/14/09 13:08	7/15/09 5:20	SW 8260B	BDP
Carbon tetrachloride	ប		125		µg/L	5	7/14/09 13:08	7/15/09 5:20	SW 8260B	BDP
Chlorobenzene	ប		125		μg/L·	5	7/14/09 [3:08	7/15/09 5:20	SW 8260B	BDP
Chloroform	ប		125		μg/L	5	7/14/09 13:08	7/15/09 5:20	SW 8260B	BDP
,4-Dichlorobenzene	บ		125		μ g/ L	5	7/14/09 13:08	7/15/09 5:20	SW 8260B	BDP
,2-Dichloroethane	บ		125		µg/L	5	7/(4/09 13:08	7/15/09 5:20	SW 8260B	BDP
I-Dichloroethene	Ü		125		µg/L	5	7/14/09 13:08	7/15/09 5:20	SW 8260B	BDP
etrachloroethere	บ		125		μg/L	5	7/14/09 13:08	7/15/09 5:20	SW 8260B	BDP
richloroethene	U		125		μg/Ľ	5	7/14/09 13:08	7/15/09 5:20	SW 8260B	BDP
inyl chloride	U		100		μg/Ľ	5	7/14/09 13:08	7/15/09 5:20	SW 8260B	BDP
-Volatile Organic Compoun	ids by GC-MS									
enaphihene	U		10.0		μg/L	1	7/14/09 14;39	7/(7/09 15:09	SW 8270C	CD4
- confermation	Ü		10.0		μg/L	i	7/14/09 14:39		•	CIM
nanhibulene			10.0		ما لت ها	1	11 14(UZ 14:37	7/17/09 15:09	SW 8270C	CIM
enaphihylene hracene	ű		10.0		μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM

LABORATORY RESULTS

Client:

Springfield Metro Sanitary District

Project:

Client Sample ID:

Collection Date:

Sugar Creek Annual

7/10/09 10:20

Sludge

Lab Order: 0900307

Lab ID: 09G0307-03

Metrix: Sludge

Collection Date:	110/03 10:20	•				WEREIX: 3	tnaße		
Analyses	•	Result	Limit Qual	Units	DF	Date Prepared	Date Analyzed	Method	Алаlyst
Benzo(a)anthracene		U	1.00	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
Benzo(b)fluoranthene		U	1.00	μg/L	ı	7/14/09 14:39	7/17/09 15:09	SW 8270C	CIM
Benzo(k)fluoranthene		υ	1.00	μg/Ն	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
Benzo(g,h,i)perylene		U	10.0	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	СЛМ
Benzo(a)pyrene		IJ	- 1.00	μg/L	-1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
Bis(2-chloroethoxy)methane		ប	10.0	μg/Ľ	i	7/14/09 14:39	7/17/09 15:09	SW 8270C	CIM
Bis(2-chloroethyl)ether		ŭ	10.0	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
Bis(2-chlorgisopropyl)ether	•	IJ	10.0	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CIM
Bis(2-ethylhexyl)phthalate		U	6.00	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	·CJM
4-Bromophenyl phenyl ether		U	10.0	μg/Ľ	t	7/14/09 14:39	7/17/09 15:09	SW 8270C	СЛМ
Butyt benzyl phthalate		U	10.0	μg/L	Į	7/14/09 14:39	7/17/09 15:09	SW 8270C	CIM
4-Chloro-3-methylphenol		U	20.0	μ g/ L	1	7/[4/09 14:39	7/17/09 15:09	SW 8270C	CJM
2-Chloronaphthalene		ប	10.0	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
2-Chlorophenol		U.	10.0	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
4-Chlorophenyl phenyl ether		Ü	[0.0]	μg/L	ĺ	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
Chrysene		Ū	1,35	μg/L	i	7/14/09 14:39	7/17/09 15:09	SW 8270C	CIM
Di-n-butyl phthalate		U	10.0	μg/L	ŧ	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
Di-n-octyl phthalate		U.	10.0	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CIM
Dibenz(a,h)anthracene		บ๋	1,00	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
1,2-Dichlorobenzene		U	10.0	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CIM
1,3-Dichlorobenzene		U	10.0	μ g/ Ľ	i	7/14/09 14:39	7/17/09 15:09	SW 8270C	CIM
1,4-Dichlorobenzene		υ	10.0	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
3,3'-Dichlorobenzidine		U	20.0	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
2,4-Dichlorophenol		U	10.0	[rg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
Diethyl phthalate		U	0.03	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C'	CIM
Dimethyl phthalate		IJ	10.0	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	СЛМ
2,4-Dimethylphenol		Ü	10:0	μg/L	ı	7/14/09 14:39	7/(7/09 15:09	SW 8270C	СЛМ
4,6-Dinitro-2-methylphenol		U	50.0	μ g /L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CIM
2,4-Dinitrophenol		U	14.0	μg/L	t	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
2,4-Dinitratoluene		U	1.00	μg/L	I	7/14/09 14:39	7/(7/09 15:09	SW 8270C	CJM
2,6-Dinitrotoluene		U	1.00	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
1,2-Diphenylhydrazine		U	10.0	μδ /Γ	t	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
Fluoranthene		บ	10.0	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
Fluorene		υ	10.0	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
Hexachlorobenzene		บ	1.00	μ g/ L	1	- 7/14/09 14:39	7/17/09 15:09	SW 1270C	CIM
Hexachlerobutadiene		U	10.0	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
Hexachlorocyclopentadiene		ช	10.0	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	СЛМ
Hexachlorocthane		U	7.00	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CIM
Indeno(1,2,3-cd)pyrene		U	1,00	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
Isophorone		Ū	10.0	μ8 \ Γ	ì	7/14/09 14:39	7/17/09 15:09	SW 8270C	СЛМ
Naphthalens		Ū	10.0	hB/r	1	7/14/09 14:39	7/17/09 [5:09	SW 8270C	CJM
Nitrobenzene		Ŭ	3.50	μg/L	1	7/14/09 14:39	7/17/09 15:09	SW 8270C	CIM
2-Nitrophenol		บ	10.0	μg/L	ì	7/14/09 14:39	7/17/09 15:09	SW 8270C	CIM
		U	50.0	μg/L		7/14/09 14:39	7/17/09 15:09	SW 8270C	CIM
4-Nitrophenol		Ŭ	10.0	µg/L ⊥	i	7/14/09 14:39	7/17/09 15:09	SW 8270C	CJM
N-Nitroso-di-n-propylamine		Ū	10.0	րջ/L	i	7/14/09 14:39	7/17/09 15:09	SW 8270C	CIM
N-Nitrosodimethylamine		U	3,20	μg/L μg/L	ì	7/14/09 14:39			CIM
N-Nitrosodiphenylamine		U	0.0900		1			SW 8270C SW 8270C	
Pentachlorophenol		บ		րց/L ստն		7/14/09 14:39			CIM
Phenanthrene	**	7.6	0.01	μg/L • đ	1	7/14/09 14:39		SW 8270C	CJM
Phenol	3.	1-0	0.01	μg/L	i	7/14/09 14:39	7/17/09 15:09	SW 8270C	СЛМ

Client:

Springfield Metro Sanitary District

Project:

Sugar Creek Annual

Client Sample ID:

Sludge

Lab Order: 09G0307

Lab ID: 09G0307-03

Cilcui Danipio 12.	5.5-g-						THE IN:	0900007-03		
Collection Date:	7/10/09 10:20						Matrix:	Sludge ,		
Analyses		Result	Limit	Qual	Units	D	F Date Propared	Date Analyzed	d Method	Analyst
Pyrene		U	10.0		μ g/L	1				CJM
1,2,4-Trichlorobenzene		υ	10,0		րե/Լ	1	7/14/09 14:39	7/17/09 [5:0		CJM
2,4,6-Trichlorophenol		บ	10.0		µg∕L	1	7/14/09 14:39			CIM
TCLP Semi-Volatile Org	anic Compounds by	GC-MS		-						
*1,4-Dichlorobenzene	•	ប	10.0		μg/L	i	7/13/09 15:40	7/15/09 10:28	SW 8270C	CJM
12,4-Dinitrotoluene		Ü	10.0		μg/L	1	7/13/09 15:40			CIM
*Hexachlorobenzene		บ	10.0		μg/L·	ī	7/13/09 15:40			CIM
*Hexachlorobutadiene		U	10.0		μg/L	i				СЛМ
*Hexachloroethane	• •	υ	10.0		r∌- μg/L	i	7/13/09 15:40			CIM
*2-Methylphenol		Ü	0.01		րջ/L	i	7/13/09 15:40	7/15/09 10:28		СЛМ
3 & 4-Methylphenol		196	20,0		μg/L	3	7/13/09 15:40	7/15/09 10:28	SW 8270C	CIM
*Nitrobenzene		IJ	10.0		μ β /Γ	ı	7/13/09 15:40	7/15/09 [0:28	SW 8270C	CIM
*Pentachlorophenol		Ü	50,0		μg/L	1	7/13/09 15:40	7/15/09 10:28	SW 8270C	CIM
Pyridina	•	Ü	50.0		μg/L	i	7/13/09 15:40	7/15/09 10:28	SW 8270C	CIM
*2,4,5-Trichlorophenol		U	10.0		μg/L	1	7/13/09 15:40	7/15/09 10:28	SW 8270C	CIM
*2,4,6-Trichlorophenol		ប	10.0		եճ∖Ր	i	7/13/09 15:40	7/15/09 10:28	SW 8270C	CIM
Organochiorine Pesticides	by GC-ECD						•			
*Aldrin		U	0.250		μ g/L	t	7/14/09 (5:40	7/15/09 20:58	SW 8081 A	BDP
*alpha-BHC		ហ	0.250		μg/L	i	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*beta-BHC		σ.	0.250		μg/L	·i	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
delta-BHC		ŭ	0.250		μg/L	ī	7/14/09 15:40	7/15/09 20:58	A1808 WZ	BDP
*gamma-BHC		Ü	0,250		μ g /Ľ	1	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*Chlordane (total)		Ü	10.0		րջ/L	i	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*4,4'-DDD		Ū	0,250		μg/Ľ	i	7/14/09 15:40	7/15/09 20:58	A (808 WZ	BDP
*4,4'-DDE		U	0.250		µg∕L	i	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*4.4'-DDT	•	Ū	1,00		jig/L	1	7/14/09 15:40	7/15/09 20:58	8W 8081A	BDP
*Dieldrin		Ü	0.250		μ <u>ε</u> /Έ	ī	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*Endosulfan I		U	0.250		μg/L	i	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*Endosulfan II		Ü	0.250		μg/L	i	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*Endosulfan sulfate		Ü	0.250		μg/Ľ	i	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*Endrin		Ü	0.250		μg/L	i	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*Endrin aldehyde		ū	0.750		μg/L	i	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*Heptachlor		Ü	0.500		μg/L	i	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*Heptachlor epoxide		ប	0.250		μg/L	i	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
*Methoxychlor		Ü	0.500		μg/L	•	7/14/09 15:40	7/15/09 20:58	A 1808 WE	BDP
*Toxaphene		U	15.0		μg/L	Ī	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
CLP Organochlorine Pestic	ides by GC-ECD								•	
*Aldrin		U	50.0		μg/L	ī	7/14/09 15:40	7/15/09 20:58	A JBOB WE	BDP
alpha-BHC		Ü	50.0		μg/L	l	7/14/09 15:40	7/15/09 20:58		
beta-BHC		ũ	50.0		μg/L	i	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
delta-BHC		υ	50.0		րջ/Լ. բջ∟	i	7/14/09 15:40	7/15/09 20:58	A 1808 WE	BDP
gamma-BHC		Ü	50.0		μg/L	:]	7/14/09 15:40		SW 8081A	BDP
gamma-bric alpha-Chlordane		บ	50.0				7/14/09 15:40	7/15/09 20:58	A 1808 WS	BDP
aipna-Chlordane gamma-Chlordane		U	50.0		μ g /L	1		7/15/09 20:58	SW 8081 A	BDP
gamma-Cniordane 4,4*-DDD		U	50.0		μg/L	į,	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP
•		Ü	50.0		μg/L	1	7/14/09 15:40		SW 8081A	BDP
4,4'.DDE		J	30,0		μg/L	ì	7/14/09 15:40	7/15/09 20:58	SW 8081A	BDP

Client:

Springfield Metro Sanitary District

Project:

Sugar Creek Annual

Lab Order: 09G0307

Client Sample ID:	Sludge						Lab ID:	09G0307-03			
Collection Date:	7/10/09 10:20						Matrix:	Sludge			
Analyses	·	Result	Limit	Qual	Units	. DE	Date Prepare	d Date An	alyzed	Method	Analyst
*4,4'-DDT		บ	100		μ g/ L	1	7/14/09 15:4	10 7/15/09	20:58	SW 8081A	BDP
*Dieldrin		ប	50.0		µg/L	1	7/14/09 15:4	10 7/1 5/09	20:58	SW 8081A	BDP
*Endosulfan I		ប	50,0		μg/L	ı	7/14/09 15:4	10 7/15/09	20:58	SW 8081A	BDP
*Endosulfan II		ប	50.0		μg/L	1	7/14/09 15:4	0 7/15/09	20:58	SW 8081A	BDP
*Endosulfan sulfate		U	50,0		μ g /L	1	7/14/09 15:4	10 7/15/09	20:58	A 1808 WZ	BDP
*Endrin		U	50.0		μg/L	1	7/14/09 15:4	0 7/15/09	20:58	A 1808 WZ	BDP
*Endrin aldehyde		บ	50.0		μg/L	1	7/14/09 15:4	0 7/15/09	20:58	SW 8081A	BDP
*Endrin ketone		ប	50,0		μg/L	1	7/14/09 15:4	0 7/15/09	20:58	A1808 WE	BDP
 Heptachlor 		U	40.0		μg/L	1	7/14/09 15:4	0 7/15/09 2	20:58	A1808 WZ	BDP
*Heptachlor epoxide		U	40.0		μg/L	1	7/14/09 15:4	0 7/1 <i>5/</i> 09 :	20:58	A1808 WZ	BDP
*Methoxychlor		ប	50.0		μg/L	I	7/14/09 15:4	0 7/15/09 2	20:58	A1808 W2	BDP
*Toxaphene	•	Ú	250		µg/L	1.	7/14/09 15:4	7/15/09 2	Q:58	A1808 WS	BDP
Polychlorinated Biphenyl	s by GC-ECD							٠			
*Araclar 1016		บ	2.50		μg/L	i	7/14/09 16:0	7/16/09 1	6:03	SW 8082	BDP
*Aroclor 1221		บ	2.50		µg/L	1	7/14/09 16:0	7/16/09 1	6:03	SW 8082	BDP
*Aroclor 1232		บ	2.50		μg/L	I	7/14/09 16:01	7/16/09 [6:03	SW 8082	BDP
*Aroclor 1242		ប	2.50		μg/L	1	7/14/09 16:01	7/16/09 1	6:03	SW 8082	BDP
*Aroclar 1248		U	2.50		μg/L	1	7/14/09 16:01	7/16/09 1	6:03	SW 8082	BDP
*Aroclor 1254		U	2.50		μg/L	I	7/14/09 16:01	7/16/09 1	6:03	SW 8082	BDP
*Arocler 1260		U	2.50		µg∕L	1	7/14/09 16:01	7/16/09 1	6:03	SW 8082	BDP
TCLP Herbicides by HPL	C-MS										
•2,4-D		U	50.0		μg/L	1	7/15/09 14:11	7/16/09	2:12	SW 8321.A	JA
*2,4,5-TP		υ	50.0	,	h B∕L	1	7/15/09 14:11	7/16/09 2	1:12	SW 8321A	JA
TCLP Metals by ICP-MS											
*Arrenic	0.0	00696	0.00500	•	mg/L	i	1 7/13/09 7:30	7/15/09 16	5:39	SW 6020A	JTC
*Bacium		0.268	0.00500		mg/L	1	7/13/09 7:30	7/15/09 16	5:39	SW 6020A	лс
*Cadmium		U	0.00100		mg/L	1	7/13/09 7:30	7/15/09 16	5:39	SW 6020A	JTC
*Chromium	0.0	0605	0.00500		mg/L	i	7/13/09 7:30	7/15/09 16	5:39	SW 6020A	JTC
*Lead	0	.0278	0.00500		mg/L	t	7/13/09 7:30	7/15/09 16	5:39	SW 6020A	ITC
*Mercury	0.00	0271	0.000200		mg/L	1	7/13/09 7:30	7/15/09 16	ī:39	SW 6020A	JTC
*Selenium	0.	.0161	0.00500		mg/L	I	7/13/09 7:30	7/15/09 16	(39	SW 6020A	JTC
*Silver		U	0.00500		mg/L	l	7/13/09 7:30	7/15/09 16	:39	SW 6020A	JTC

Prairie.	Analytica.	Systems,	Inc.
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~~	LABORATOR	Y RESULTS	
Client: Project:	Springfield Metro Sanitary District Sugar Creek Annual	Lab Order: 0900307	
	Notes and Defin	ittons	
s	Spike recovery outside acceptance limits.		
R	RPD outside acceptance limits.		
•	NELAC certified compound.		
j	Analyte-not detected (i.e. less than RL or MDL).		

Chain of Custody Record

Central IL- 1210 Capital Airport Drive - Springfield, IL 62707-8490 - Phone (217) 753-1148 - Facstmile (217) 753-1152 Chicago Office - PO Box 2116 - Crystal Lake, IL 60039-2116 - Phone (847) 651-2604 - Facstmile (847) 458-9680

www.prakieanalytical.com



Address City, State Zip Code	SHSD Springfield, IL 528-0491 1528-0497 Sugar Creek Annual ! Standard (M. Rush [] Date Required;						signatural method Requested			TCLP Hetals, TCLP Val, TCLP Soul ST TCLP Pest/Herb		ejhod ke	guesce a			Reporting TACO Resid Ind/Comm CABM A B C RISC
P.G. # or InVolce To	Grea Fr	igse	. <u> </u>	· · · · · · · · · · · · · · · · · · ·	······································			720	3276	3 3	P3					Resid
Sample Description	JATES Sam	nling Tame	Mamx	roral stor	Sami	ole (- 9010						34		Latioralogy Comments
Influent	7 10	10.05	A		X	Jelap 4		*********** *								
Gfflunt	7/10	10:20	A		X			X	·							
Studge	7/10	10:20	S						×	X	Х					
0	1 1'															
									 	<u> </u>	ļ	<u> </u>	 	ļ	<u> </u>	
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M Mayor Code						Groundwa	ile:	NA	Non)aque	jus Ligikl	4					er (Specify)
	Kished By		ale. -04				2	Rec	erved By		//	7/2	oane 5/09	1//	0/-	the figure of the content and content to the
1777		(-10	-07	17:0	5 Am	J St	\	$-\epsilon$		(A) A		1/10	409	11:0	20	Client
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Special Instructions:	to Grea							1_	0/C L							emperature (*G)
	Ü															/



Wednesday, September 1, 2010

Greg Fraase

Springfield Metro Sanitary District 3017 North 8th Street Springfield, IL 62707

TEL: (217) 528-0491 . FAX: (217) 528-0497

RE: Sugar Creek Annual

PAS WO:

10G0346

Prairie Analytical Systems, Inc. received 3 sample(s) on 7/28/2010 for the analyses presented in the following report.

All applicable quality control procedures met method specific acceptance criteria unless otherwise noted.

This report shall not be reproduced, except in full, without the prior written consent of Prairie Analytical Systems, Inc.

If you have any questions, please feel free to contact me at (217) 753-1148.

Respectfully submitted,

Kristen A. Potter

Project Manager

Certifications:

NELAP/NELAC - IL #100323

ent:

Springfield Metro Sanitary District

Project:

Sugar Creek Annual

Client Sample ID: Collection Date: Influent

Lab Order: 10G0346

Lab ID: 10G0346-01

7/28/10 0:00

Matrix: Water

Analyses	Result	Limit	Qual Unit	s DF	Date Prepared	Dute Analyzed	Method	Analys
Volatile Organic Compounds by GC-MS								
Acrolein	U	50.0	μg/L	1	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
Acrylanitrile	. U	50.0	μg/L	I	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
Benzene	Û	5.00	μg/L	I	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
Bromodichioromethane	บ	5.00	μg/L	1	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
Bromoform	ט	5.00	μg/L	1	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
Bromomethane	Ü	5.00	μg/Ľ	ī	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
Carbon tetrachloride	Ū	5.00	μ <u>σ</u> /Ն	Ī	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
Chlorobenzene	บ	5.00	μg/L	I	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
Chloroethane	Ū	5.00	μg/L	ī	8/9/10 16:55	8/9/10 20:23	EPA 624	JКА
2-Chloroethyl vinyl ether	บ	5.00	μ g/ L	ì	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
Chloroform	Ü	5.00	μg/L	1	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
Chloromethane	ŭ	5.00	μ g/L .	1	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
Dibromochloromethane	บ	5.00	μ g/L	1	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
1,1-Dichloroethane	Ü	5.00	ду. Дун	į.	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
ł ,2-Dichloroethane	Ü	5.00	μg/L	1	8/9/10 16:55	8/9/[0 20:23	EPA 624	JKA
1,1-Dichloroethene	ប	5.00	րց/Ն րց/Ն	i	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
cis-I,2-Dichloroethene	Ü	5.00	րք/Ն µg/Ն	1	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
trans-1,2-Dichloroethene	บ	5.00	րք/Ն µg/Ն	1	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
1,2-Dichloropropane	บ	5.00		i	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
1.2 Dichlessesses	บ	5.00	μg/C υσ/	l l	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
ns-1,3-Dichloropropene. با ماد-د.	U	5.00	μ g/ L μg/L	1	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
Ethylbenzene	บ	5.00		1				JKA
	ט		μg/L	į	8/9/10 16:55	8/9/10 20:23	EPA 624	
Methylene chloride	U	5.00 5.00	n=ω ħ â /Γ	-	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
1,1,2,2-Tetrachloroethane			μg/L ···········	1	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
Tetrachloroethene	U	5.00	μg/L	1	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
Toluene	Ŭ	5.00	μ g/L	1	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
1,1,1-Trichloroethane	ប	5.00	µg∕L. ~	1	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
1,1,2-Trichloroethane	U	5.00	μg/L	Į.	8/9/10 16:55	8/9/10 20:23	EPA 624	IKA
Trichloroethene	Ū	5.00	ր ց /Ն -	Į.	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
Vinyl chloride	U	5.00	μ g/L	1	8/9/10 16:55	8/9/10 20:23	EPA 624	JKA
emi-Volatile Organic Compounds by GC-M	s		•					
Acenaphthene	ប	10.9	μg/Ĺ	1	7/28/10 11:12	7/30/10 3:55	EPA 625	ЈКА
Acenaphthylene	U.	10.9	μg/L	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Anthracene	ŭ	10.9	μ g/ L	i	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Benzidine	Ū	10.9	μg/L	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Benzo(a)anthracene	Ū	10.9	μg/L	i	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Benzo(b)fluoranthene	ŭ	10,9	μg/L	ì	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Benzo(k)fluoranthene	ŭ	10.9	μg/L	i i	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Benzo(g,h,i)perylene	Ü	10.9	μg/L	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Benzo(a)pyrene	ប	10.9	hā\ŗ Pē\₽	ı	7/28/10 11:12	7/30/10 3:55		
B is (2-chloroethoxy) methane	Ū	10.9	μg/L	į	7/28/10 [[:12		EPA 625	JKA
Bis(2-chloroethyl)ether	Ü	10.9	μg/L	l	7/28/10 [1:12	7/30/10 3:55 7/30/10 3:55	EPA 625	JKA
Bis(2-chiloroisopropyl)ether	ย	10.9		1			EPA 625	JKA
Bis(2-ethorosoptopyr)ether Bis(2-ethylhexyl)phthalate	U	10.9	μg/L μg/L	ĺ	7/28/10 11:12 7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
antophenyl phenyl ether	บ	10.9				7/30/10 3:55	EPA 625	JKA
	ช	10.9	11.6√Γ	į.	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
. benzyl phthalate I-Chloro-3-methylphenol	Ü	21.7	μg/L uσ/l	l ,	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
			μg/L	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
2-Chloronaphthalene	U	10.9	μg/∟	i	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA

int:

Springfield Metro Sanitary District

. . oject:

Sugar Creek Annual

Client Sample ID: Collection Date:

Influent

7/28/10 0:00

Lab Order: 10G0346

Lab ID: 10G0346-01

Matrix: Water

Analyses	Result	Limit	Qual	Units	DI	F Date Prepared	Date Analyze		
2-Chlorophenol	ប	10.9		μg/L	1	7/28/10 11:12			JKA
4-Chlorophenyl phenyl ether	ប	10.9		μg/L	1	7/28/10 11:12	7/30/10 3:5:	5 EPA 625	JKA
Chrysene	ប	10.9		μg/Ľ	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Di-n-butyl phthalate	ប	10.9		μg/L	i	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Di-n-octyl phthalate	U	10.9		μg/L	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Dibenz(a,h)anthracene	Ŭ	10.9		μg/L	· 1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
1,2-Dichlorobenzene	ប	10.9		μg/L	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
1,3-Dichforobenzene	ប	10.9		μg/L	I	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
1,4-Dichlorobenzene	· U	10.9		μg/Ľ	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
3,3'-Dichlorobenzidine	ប	21.7		μg/L	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
2,4-Dichlorophenol	ប	10.9		μg/L	ı	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Diethyl phthalate	ប	10.9		μg/L	I	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Dimethyl phthalate	ប	10.9		μg/L	1	7/28/10 [1:12	7/30/10 3:55	EPA 625	JKA
2,4-Dimethylphenol	U	10.9		μg/L	1	7/28/10 [1:12	7/30/10 3:55	EPA 625	JКА
4,6-Dinitro-2-methylphenol	Ū	54.3		μg/L	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
2,4-Dinitrophenol	Ū.	54.3		μg/L	ſ	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
2,4-Dinitrotoluene	Ū	10.9		μg/L	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
2,6-Dinitrotoluene	Ū	10.9		μg/L	į	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
1,2-Diphenylhydrazine	Ū	10.9		μg/L	[7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Fluoranthene	บ	10.9		μg/L	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
T' rene	U U	10.9	, , ,	μg/L	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
ıchlorobenzene	บ	10.9		μg/L	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Hexachlorobutadiene	บ	10.9		μg/L	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JКА
Hexachlorocyclopentadiene	Ü	10.9		μg/L μg/L	i	7/28/10 11:12	7/30/10 3:55	EPA 625.	JKA
Hexachloroethane	ប	10.9		μg/L	i	7/28/10 11:12	7/30/10 3:55	EPA 625	ЛКА
Indeno(1,2,3-cd)pyrene	บ	10.9		րց∕ Մ	i	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Isophorone	บ	10.9		μg/L	ĺ	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Naphthalene	Ü	10.9		μg/L μg/L	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Nitrobenzene	บ	10.9		μg/L μg/L	[7/28/10 [1:12	7/30/10 3:55	EPA 625	JKA
N-Nitroso-di-n-propylamine	r U	10.9		ha\r ha\r	ĺ	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
N-Nitrosodimethylamine	บ	10.9		μg/L	I	7/28/10 11:12			JKA
N-Nitrosodiphenylamine	U	10.9		μg/L	i	7/28/10 11:12	7/30/10 3:55	EPA 625	
l-Nitrophenol	บ	10.9					7/30/10 3:55	EPA 625	ЛКА
-Nitrophenol	ប			μg/L	l ,	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
•		54.3		μg/L	į.	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Pentachlorophenol	U	54.3		μg/L	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
Înenanthrene	U	10.9		μg/L -	1	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
frenoi	r.	10.9		μg/L -	1	7/28/10 [1:12	7/30/10 3:55	EPA 625	JKA
yrene '	U .	10.9		μg/L	į.	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
,2,4-Trichlorobenzene	U	10.9		μg/L	i	7/28/10 11:12	7/30/10 3:55	EPA 625	JKA
4,6-Trichlorophenol	U	10.9		μg/Ľ	Ĺ	7/28/10 11:12	7/30/[0 3:55	EPA 625	JΚΑ
ganochlorine Pesticides by GC-ECD									
Aldrin	U	0.0602	1	μg/L	1	7/30/10 11:08	8/2/10 17:39	SW 8081A	BDP
alpha-BHC	U	0.0602	1	ug/L	1	7/30/10 11:08	8/2/10 [7:39	SW 8081A	BDP
eta-BHC	U	0.0602		ug/L	ı	7/30/10 [1:08	8/2/10 17:39	SW 8081A	BDP
lelta-BHC	U	0.0602		ıg/L	1	7/30/10 11:08	8/2/10 17:39	A1808 WZ	BDP
гтта-ВНС		0.0602		ıg/L	1	7/30/10 11:08	8/2/10 17:39	SW 8081A	BDP
• .	U	2.41			į .	7/30/10 [1:08		SW 8081A	
dane (total)	U	4.71	<u>,</u>	ravr	L	מטבוז טוועכוו	0/4/10 1/139	2 M GOOLW	BUP
'dane (total) ,4'-DDD		0.0602		ig/L ig/L	1	7/30/10 11:08		A1808 W2	BDP BDP

Date: 9/1/2010

LABORATORY RESULTS

ent:

Springfield Metro Sanitary District

_ roject;

Sugar Creek Annual

Lab Order: 10G0346

6-01

Client Sample ID:	Influent						Lab ID:	10G0346
Collection Date:	7/28/10 0:00						Matrix:	Water
A malvees		Rocuit	T im it	Onal	Unite	DE	Nata Pranusad	Dot

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
*4,4'-DDT	บ	0.241		μg/L	i	7/30/10 11:08	8/2/10 17:39	A1808 WZ	BDP
*Dieldrin	บ	0.0602		μg/L	1	7/30/10 11:08	8/2/10 17:39	SW 8081A	BDP
*Endosulfan I	ប	0.0602		μ g/ L	ı	7/30/10 [1:08	8/2/10 17:39	A1808 WZ	BDP
*Endosulfan II	U	0.0602		μg/L	1	7/30/10 11:08	8/2/10 17:39	SW 8081A	BDP
*Endosulfan sulfate	U	0.0602		μg/L	i	7/30/10 11:08	8/2/10 17:39	A1808 WZ	BDP
*Endrin	U	0.0602		րg/L	1	7/30/10 11:08	8/2/10 17:39	SW 8081A	BDP
*Endrin aldehyde	U	0.181		μg/L	Į	7/30/10 11:08	8/2/10 17:39	SW 8081A	BDP
*Heptachlor	ប	0.120		μg/L	1	7/30/10 11:08	8/2/10 17:39	SW 8081A	BDP
*Heptachlor epoxide	บ	0.0602		μg/L	1	7/30/10 11:08	8/2/10 17:39	SW 8081A	BDP
*Methoxychlor	U	0.120		μg/L	į	7/30/10 11:08	8/2/[0 17:39	SW 8081A	BDP
*Toxaphene	U	3.61		μg/L	1	7/30/10 11:08	8/2/10 17:39	A1808 WZ	BDP
Polychlorinated Biphenyls by GC-ECD									
*Aroclor 1016	U	0.602		μg/L	ı	7/30/10 [1:1]	8/3/10 3:11	SW 8082	BDP
*Aroclor 1221	U	0.602		μg/L	1	7/30/10 11:11	8/3/10 3:11	SW 8082	BDP
*Aroclor 1232	U	0.602		μg/L	1	7/30/10 11:11	8/3/10 3:11	SW 8082	BDP
*Araclor 1242	U	0.602		μg/L	1	7/30/10 11:11	8/3/10 3:11	SW 8082	BDP
*Araclor 1248	U	0.602		μg/L	l	7/30/10 11:11	8/3/10 3:11	SW 8082	BDP
*Aroclor 1254	U	0.602		μg/L	l	7/30/10 11:11	8/3/10 3:11	SW 8082	BDP
*Aroclor 1260	U	0.602		μg/L	I	7/30/10 11:11	8/3/10 3:11	SW 8082	BDP
		•							
*Antimony	0.00700	0.00500		mg/L	i	7/29/10 12:00	8/29/10 6:54	EPA 200.8	JTC
*Arsenic	U	0.00500		mg/L	1	7/29/10 12:00	8/29/10 6:54	EPA 200.8	JTC
*Barium	0.0775	0.00500		m g/ L	1	7/29/10 12:00	8/29/10 6:54	EPA 200.8	JTC
*Beryllium	U	0.00400		mg/L	1	7/29/[0 12:00	8/29/10 6:54	EPA 200.8	JTC
*Cadmium	U	0.00100		mg/L	1	7/29/10 12:00	8/29/10 6:54	EPA 200.8	JTC
*Chromium	U	0.00500		mg/L	Į	7/29/10 [2:00	8/29/10 6:54	EPA 200.8	JTC
*Copper	0.0207	0.00500		mg/L	l	7/29/10 12:00	8/29/10 6:54	EPA 200.8	JTC
*Iron	0.575	001.0		mg/L	1	7/29/10 12:00	8/29/10 6:54	EPA 200.8	πc
*Lead	0.00998	0.00500	•	mg/L	1	7/29/10 [2:00	8/29/10 6:54	EPA 200.8	JTC
*Mangan ese	0.0974	0.00500		mg/L	1	7/29/10 12:00	8/29/10 6:54	EPA 200.8	JTC
*Mercury	U	0.000200		mg/L	I	7/29/10 12:00	8/29/10 6:54	EPA 200.8	JTC
*Molybdenum	0.00801	0.00500		mg/L	Ł	7/29/10 12:00	8/29/10 6:54	EPA 200.8	JTC
*Nickel	U	0.00500	•	mg/L	1 .	7/29/10 12:00	8/29/10 6:54	EPA 200.8	JTC
*Potassium	4.70	0,300		mg/L	1	7/29/10 12:00	8/29/10 6:54	EPA 200.8	JTC
*Selenium	ប	0.00500		mg/L	į.	7/29/10 12:00	8/29/10 6:54	EPA 200.8	JTC
*Silver	U	0.00500		mg/L	1	7/29/10 12:00	8/29/10 6:54	EPA 200.8	ЛС
*Thallium	ប	0.00200		mg/L	1	7/29/10 12:00	8/29/10 6:54	EPA 200.8	ЛC
*Zine	0.0478	00100		mg/L	i	7/29/10 12:00	8/29/10 6:54	EPA 200.8	JTC
Dissolved Metals by ICP-MS							•		
* Iroa	0.152	0.100		mg/L	Į	7/30/10 15:25	8/29/10 3:52	EPA 200.8	JTC

Date: 9/1/2010

LABORATORY RESULTS

ient:

Springfield Metro Sanitary District

roject:
Client Sample ID:

Sugar Creek Annual

Effluent

Collection Date:

7/28/10 0:00

Lab Order: 10G0346

Lab ID: 10G0346-02

Matrix: Water

Aradyses	Result	Limit	Qual	Vaits	D	F Date Prepared	Date Anulyzeo	Method	· Analys
Volatile Organic Compounds by Go	C-MS								
Acrolein	U	50.0		μg/L	1	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
Acrylonitrile	IJ	50.0		μg/L	1	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
Benzene	บ	5,00		μg/L	1	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
Bromodichloromethane	Ü	5.00		μg/L	1	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
Bromoform	٠ .	5.00		πâ√Γ	1	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
Bromomethane	บ	5.00		μg/L	ī	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
Carbon tetrachloride	บ	5.00		μg/L	i	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
Chlorobenzene	บ	5.00		μg/L	1	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
Chloroethane	บ	5.00	•	μg/L	i	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
2-Chloroethyl vinyl ether	ŭ	5.00		μg/L	l	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
Chloroform	ប	5.00			1	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
Chloromethane	บ	5.00		μg/L	1			EPA 624	
Dibromochloromethane	ប	5.00		μ g/L		8/9/10 16:55	8/9/10 20:55		JKA
1,1-Dichloroethane	บ	5.00		μg/L	I	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
1,2-Dichloroethane	บ	5.00		μg/L	1	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
1,1-Dichloroethene		5.00 5.00		μg/L	1	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
cis-1,2-Dichloroethene	Ü			μg/L	l	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
trans-1,2-Dichloroethene	ប	5.00		μg/L	į.	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
•	U	5.00		μg/L	i	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
[,2-Dichloropropane	Ū	5,00		μg/L	1	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
-1,3-Dichloropropene	U	5.00		μg/L	I	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
//s-1,3-Dichloropropene	ט	5.00		μg/L	1	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
Ethylbenzene	Ŭ	5.00		μg/L	l	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
Methylene chloride	U	5.00		μ g/ L	I	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
1,1,2,2-Tetrachloroethane	U	5.00		μg/L	1	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
Cetrachloroethene	U	5.00		μg/L	1	8/9/10 16:55	8/9/10 20:55	EPA 624	ЛКA
Taluene	ប	5.00		µք∕Ն	1	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
,I,I-Trichloroethane	U	5.00		μg/L	1	8/9/10 16:55	8/9/10 20:55	EPA 624	1K A
, I,2-Trichloroethane	ប	5.00		μg/L	1	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
richloroethene	U	5.00		μg/L	ı	8/9/10 16:55.	8/9/10 20:55	EPA 624	JKA
rinyl chloride	ប	5.00	•	և≅∕Ր	i	8/9/10 16:55	8/9/10 20:55	EPA 624	JKA
ni-Volatile Organic Compounds by (GC-MS								
.cenaphthene	U	11.5		μg/L	1	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
cenaphthylene	U	11.5		μg/L	ι	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
nthracene	ប	11.5		μg/L	1	7/28/10 [1:[2	7/30/10 4:27	EPA 625	JKA
enzidine	ប	11.5		μg/L	l	7/28/10 [1:12	7/30/10 4:27	EPA 625	JKA
enzo(a)anthracene	Ū	11,5		μg/L	I	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
enzo(b)fluoranthene	ប	11.5		μg/L	1	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
enzo(k)fluoranthene	U	11.5		μg/L	F	7/28/10 11:12	7/30/10 4:27	EPA 625	JКА
nzo(g,h,i)perylene	ប	11.5		μg/L,	ĺ	7/28/10 [1:12		EPA 625	JKA
nzo(a)pyrene	ប	11.5		 ug/L	1	7/28/10 [1:12		EPA 625	JKA
s(2-chloroethoxy)methane	U	11.5		ıg/L	ī	7/28/10 11:12		EPA 625	JKA
- T	U	11.5		ıg/L	i	7/28/[0 11:12		EPA 625	JKA
s(2-chioroelhyllether					i	7/28/10 [1:[2		EPA 625	JKA
s(2-chloroethyl)ether s(2-chloroisogropyl)ether		11.5	f:	19/L	1				
s(2-chloroisopropyl)ether	ប	11.5 50.0		tg/L tg/L					
s(2-chloroisopropyl)ether s(2-ethylhexyl)phthalate	U 232	50.0	μ	ıg/L	5	7/28/10 [1:12	8/2/10 17:07	EPA 625	JKA
s(2-chloroisopropyl)ether s(2-ethylhexyl)phthalate Promophenyl phenyl ether	ប 232 ប	50,0 11,5	'n	ig/L ig/L	5 1	7/28/10 1:12 7/28/10 1:12	8/2/10 [7:07 7/30/10 4:27	EPA 625 EPA 625	JKA JKA
s(2-chloroisopropyl)ether s(2-ethylhexyl)phthalate	U 232	50.0	ր Մ	ıg/L	5	7/28/10 [1:12	8/2/10 [7:07 7/30/10 4:27 7/30/10 4:27	EPA 625	JKA

nt:

Springfield Metro Sanitary District

r i oject:

Sugar Creek Annual

Client Sample ID:

Effluent

Collection Date:

7/28/10 0:00

Lab Order: 10G0346

Lab ID: 10G0346-02

Matrix: Water

A nalyses	Result	Limit	Qual	Units	DF	Dute Prepared	Date Analyzed	Method	Analyst
2-Chlarophenol	U	11.5		μg/L		7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
4-Chlorophenyl phenyl ether	U	11.5		μg/L	1	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
Chrysene	U	11.5		μg/L	1	7/28/10 [1:12	7/30/10 4:27	EPA 625	JKA
Di-n-butyl phthalate	U	11.5		μg/L	£	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
Di-n-octyl phthalate	U	11.5		μg/L	1	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
Dibenz(a,h)anthracene	Ŭ	11.5		μg/L	1	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
1,2-Dichlorobenzene	U	11.5		µg/L	1	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
1,3-Dichlorobenzene	Ū.	11.5		μ g/ L	1	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
1,4-Dichlorobenzene	บ	11.5		μg/L	ı	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
3,3'-Dichlorobenzidine	U	23,0		μg/L	ı	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
2,4-Dichlorophenol	Ü	11.5		μg/L	1	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
Diethyl phthalate	U	11.5		μg/L	I	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
Dimethyl phthalate	Ū	11.5		μg/L	1	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
2,4-Dimethylphenol	U	11.5		μ g/ L	i	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
4,6-Dinitro-2-methylphenol	ប	57.5		μg/L	1	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
2,4-Dinitrophenol	ប	57.5		μg/L.	1	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
2,4-Dinitrotoluene	Ū	11.5		μg/L	1	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
2,6-Dinitrotoluene	Ū	11.5		μg/L	1	7/28/[0 [1:12	7/30/10 4:27	EPA 625	JKA
(,2-Diphenylhydrazine	ប	11.5		μg/L	1	7/28/10 II:12	7/30/10 4:27	EPA 625	JKA
Fluoranthene	Ū	11.5	-	μg/L	1	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
T**-orene	U	11.5		μ <u>σ</u> /Ľ	1	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
2chlorobenzene	Ū	11.5		μg/L	1	7/28/10 11:12	7/30/10 4:27	EPA 625	JΚΑ
Hexachlorobutadiene	บ	11.5		μg/L	l	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
Hexachlorocyclopentadiene	บ	11.5		μg/L	i	7/28/10 [1:12	7/30/10 4:27	EPA 625	JKA
Hexachloroethane	Ū	11.5		μg/L	1	7/28/10 11:12	7/30/10 4:27	EPA 625	ЛΚΑ
Indeno(1,2,3-cd)pyrene	บ	11.5		μg/L	1	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
Isophorone	บั	11.5	·	rg/L μg/L	ı	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
Naphthalene	ប	11.5		μg/L	ĺ	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
Nitrobenzene	Ū	11.5		μg/L	Ī	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
N-Nitroso-di-n-propylamine	บ	11.5		μg/Ľ	·	7/28/10 11:12	7/30/10 4:27	EPA 625	JKΑ
N-Nitrosodimethylamine	บ	11.5		μg/Ľ	I	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
N-Nitrosodiphenylamine	Ū	11.5		μg/L	i	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
2-Nitrophenol	Ü	11.5		μ8/Γ -a-	l	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
4-Nitrophenol	ย	57.5		μg/L	i	7/28/10 [1:12	7/30/10 4:27	EPA 625	JKA
Pentachlorophenol	ע	57.5		μg/Ľ	j	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
Phenanthrene	ŭ	11.5		μg/L	t	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
Plienof	ũ	11.5		μg/L	i	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
Pyrene	IJ	11.5		μg/L	1	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
1,2,4-Trichlorobenzene	U	11.5		μg/Ľ	ı	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
2,4,6-Trichlorophenol	ũ	11.5		μg/L	ĺ	7/28/10 11:12	7/30/10 4:27	EPA 625	JKA
Organish Darisidas hu CC PCD						•			
Organochlorine Pesticides by GC-ECD	7.7	A A575		ua/!		7/20/10 11:00	D10410 10-10	CILIDADIA	DDB
*Aldrin	Ü	0.0575		μg/L	i .	7/30/10 11:08	8/2/10 18:13	SW 8081A	BDP
*alplia-BHC	U	0.0575		μg/L /ī	į,	7/30/10 11:08	8/2/10 18:13	SW 8081A	BDP
*beta-BHC	U	0.0575		μg/L «	1	7/30/10 11:08	8/2/10 18:13	A 1808 WZ	BDP
*delta-BHC	Ŭ	0.0575		μg/L	1	7/30/10 11:08	8/2/10 [8:13	A1808 WZ	BDP
* canna-BHC	ព	0.0575		μg/L	i	7/30/10 11:08	8/2/10 18:13	SW 808 I.A	BDP
rdane (total)	U 	2.30		μg/Ľ	į.	7/30/10 11:08	8/2/10 18:13	SW 8081A	BDP
*4,4-DDD	Ű	0.0575		μg/L	1	7/30/10 11:08	8/2/10 18:13	SW 8081A	BDP
*4,4'-DDE	U	0.0575		μg/L	ſ	7/30/10 11:08	8/2/10 18:13	A1808 WZ	BDP

jent:

Springfield Metro Sanitary District

- roject:

Sugar Creek Annual

Effluent

Client Sample ID:

Lab Order: 10G0346

Lab ID: 10G0346-02

Collection Date:	7/28/10 0:00						Matrix:	water		
Analyses		Result	Limit	Qual	Units	Di	Date Prepared	Date Analyzed	Method	Ana
*4,4'-DDT		Ü	0.230		μg/L	1	7/30/10 11:08	8/2/10 18:13	A1808 W2	BI
*Dieldrin	•	U	0.0575		μg/L	1	7/30/10 11:08	8/2/10 18:13	A1808 W2	BI
*Endosulfan I		U	0.0575		μ g/L	ı	7/30/10 11:08	8/2/10 18:13	A1808 WZ	BD
*Endosulfan II		U	0.0575		μg/L	1	7/30/10 11:08	8/2/10 18:13	SW 8081A	BD
*Endosulfan sulfate		U	0.0575		μg/L	1	7/30/10 11:08	8/2/10 18:13	SW 8081A	BE
*Endrin		U	0.0575		μg/L	1	7/30/10 11:08	8/2/10 18:13	SW 8081A	BC
*Endrin aldehyde		IJ	0.172		μg/L	1	7/30/10 11:08	8/2/10 18:13	SW 8081A	BD
*Heptachlor		U	0.115		μg/L	E	7/30/10 11:08	8/2/10 18:13	SW 8081A	BD
*Heptachlor epoxide		ប	0.0575		μg/L	t	7/30/10 11:08	8/2/10 18:13	SW 8081A	BD
*Methoxychlor		ប	0.115		μg/L	1	7/30/10 11:08	8/2/10 18:13	SW 808 LA	BD
*Toxaphene		U	3.45		, μ ä /Γ	1	7/30/10 11:08	8/2/10 18:13	SW 8081A	BD
olychlorinated Biphenyls l	y GC-ECD									
*Aroclor 1016	-	U	0.575		μg/L	I	7/30/10 11:11	8/3/10 3:45	SW 8082	BD
*Aroclor 1221		ប	0.575		μg/L	i	7/30/10 11:11	8/3/10 3:45	SW 8082	BDI
*Aroclor 1232		U	0.575		μg/L	1	7/30/10 11:11	8/3/10 3:45	SW 8082	BD
*Aroclor [242		U	0.575		μg/L	i	7/30/10 11:11	8/3/10 3:45	SW 8082	BD
*Aroclor 1248		Ü	0.575		μg/L	1	7/30/10 11:11	8/3/10 3:45	SW 8082	BDI
*Aroclor 1254		U	0.575		μg/L	1	7/30/10 [1:11	8/3/10 3:45	SW 8082	BDI
*Aractor 1260		U	0.575		μ Σ/ Γ	1	7/30/10 11:11	8/3/10 3:45	SW 8082	BDE
_ais by ICP-MS	•									
Antimony	0.0063	51	0.00500		mg/L	1	7/29/10 12:00	8/29/10 7:03	EPA 200.8	ЛС
'Arsenic		บ	0.00500		mg/L	1	7/29/10 12:00	8/29/10 7:03	EPA 200.8	JTC
Barium	0,050	0	0.00500		mg/L	ĺ	7/29/10 12:00	8/29/10 7:03	EPA 200.8	JTC
Beryllium		U	0.00400		mg/L	1	7/29/10 12:00	8/29/10 7:03	EPA 200.8	ЛC
Cadmium	;	U	0.00100		mg/L	1	7/29/10 12:00	8/29/10 7:03	EPA 200.8	лс
Chromium	1	Ü	0.00500		mg/L	ī	7/29/10 12:00	8/29/10 7:03	EPA 200.8	JTC
Copper	Ę	IJ	0.00500		mg/L	1	7/29/10 12:00	8/29/10 7:03	EPA 200.8	JTC
Iron	0.10	2	0.100		mg/L	I	7/29/10 12:00	8/29/10 7:03	EPA 200.8	JTC
Lead.		J	0.00500		nig/L	ĺ	7/29/10 12:00	8/29/10 7:03	EPA 200.8	JTC
Manganese	0.0158	3	0.00500		mg/L	i	7/29/10 12:00	8/29/10 7:03	EPA 200.8	JTC
Mercury	į		0.000200		mg/L	1	7/29/10 [2:00	8/29/10 7:03	EPA 200.8	лс
Molybdenum	0.00502		0.00500		mg/L	i	7/29/10 12:00	8/29/10 7:03	EPA 200.8	ЛC
lickel	Ū		0.00500		mg/L	ī	7/29/10 12:00	8/29/10 7:03	EPA 200.8	ITC
otassium	4.22		0.300		mg/L	i	7/29/10 12:00	8/29/10 7:03	EPA 200.8	JTC
elenium	Ü		0.00500		nig/L	i				
ilver	ū		0.00500		mg/L		7/29/10 12:00		EPA 200.8	JTC
hallium	. U		0.00200		-	I	7/29/10 12:00		EPA 200.8	JTC
inc	0.0156		0.0100		mg/L nig/L	ſ	7/29/10 12:00 7/29/10 12:00		EPA 200.8 EPA 200.8	JTC JTC
olved Metals by ICP-MS										
on ved wietars by ICF-wig	U		0.100		ng/L	ī	7/30/10 15:25	8/29/10 4:01	EPA 200.8	JTС

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Springfield Metro Sanitary District

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Sugar Creek Annual

Sludge

Client Sample ID: Collection Date:

7/28/10 8:00

Lab Order: 10G0346

Lab ID: 10G0346-03 Matrix: Sludge

Arnalyses	Result	Limit	Qual Units	DF	Date Prepared	Dute Analyzed	Method	Analyst
Volatile Organic Compounds by GC-MS								
Acrolein	ប	2840	µg/Kg dry	, I	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
Acrylonitrile	U	2840	μg/Kg dry		8/10/10 10:29	8/10/10 14:13		BDP
Benzene	U	284	μg/Kg dry		8/10/10 10:29	8/10/10 14:13		BDP
Bromodichloromethane	IJ	284	μg/Kg dry		8/10/10 10:29	8/10/10 14:13		BDP
Bromoform	U	284	µg/Kg dry		8/10/10 10:29	8/10/10 14:13		BDP
Bromomethane	Ü	567	μg/Kg dry		8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
Carbon tetrachloride	. U	284	μg/Kg dry		8/10/10 10:29	8/10/10 14:13		BDP
Chlorobenzene	ប	284	μg/Kg dry		8/(0/10 10:29	8/10/10 14:13	SW 8260B	BDP
Chloroethane	บ	567	μg/Kg dry		8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
2-Chloroethyl vinyl ether	ប	567	μg/Kg dry	I	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
Chloroform	U	284	μg/Kg dry	ī	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
Chloromethane	ប	567	μg/Kg dry	i	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
Dibromochloromethane	บ	284	μg/Kg dry	1	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
l, l-Dichloroethane	U	284	μg/Kg dry	t	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
1,2-Dichloroethane	U	284	μg/Kg dry	í	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
1,1-Dichloroethene	Ū	284	μg/Kg dry	1	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
trans-1,2-Dichloroethene	Ü	284	μg/Kg dry	Ī	8/10/10 10:29	8/10/10 14:13	.SW 8260B	BDP
1,2-Dichloropropane	U	284	· μg/Kg dry	i	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
cis-1,3-Dichloropropene	ប	284	μg/Kg dry	1	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
5-1,3-Dichloropropene	U	284	μg/Kg dry	l	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
ylbenzene	Ü	284	μg/Kg dry	1	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
Methylene chloride	U	284	μg/Kg dry	Ī	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
1,1,2,2-Tetrachloroethane	U	284	μ g/ Kg dry	1	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
Tetrachloroethene	U	284	μg/Kg dry	1	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
Toluene	U	284	μg/Kg dry	Ī	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
1,1,1-Trichloroethane	บ	284	μg/Kg dry	1	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
1,1,2-Trichloroethane	Ü	284	μg/Kg dry	Ĩ	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
Trichloroethene	ប	284	μg/Kg dry	Ĺ	8/[0/10 10:29	8/10/10 [4:13	SW 8260B	BDP
Vinyl chloride	ប	425	μg/Kg dry	1	8/10/10 10:29	8/10/10 14:13	SW 8260B	BDP
TCLP Volatile Organic Compounds by GC-l	MS							
*Benzene	U	125	μg/L	5	8/9/10 10:10	8/9/10 11:36	SW 8260B	BDP
*2-Butanone	U	125	μg/L	5	8/9/10 10:10	8/9/10 11:36	SW 8260B	BDP
*Carbon tetrachloride	ប	125	μg/L	5	8/9/10 10:10	8/9/10 11:36	SW 8260B	BDP
*Chlorobenzene	U	125	μ <u>σ</u> /Ľ	5	8/9/10 10:10	8/9/10 11:36	SW 8260B	BDP
*Chloroform	U	125	μg/L	5	8/9/10 10:10	8/9/10 11:36	SW 8260B	BDP
• 1,4-Dichlorobenzene	Ū	125	μg/Ľ	5	8/9/10 10:10	8/9/10 [1:36	SW 8260B	BDP
*1,2-Dichloroethane	U	125	μ g/ L	5	8/9/10 10:10	8/9/10 11:36	SW 8260B	BDP
* 1,1-Dichloroethene	ប	125	μ g/ L	5	8/9/10 10:10	8/9/10 11:36	SW 8260B	BDP
*Tetrachloroethene	ប	125	μg/L	5	8/9/10 10:10	8/9/10 11:36	SW 8260B	BDP
*Trichloroethene	ប	125	μg/L	5	8/9/10 10:10	8/9/10 11:36	SW 8260B	BDP
*Vinyl chloride	U	100	μ g/ L	5	8/9/10 10:10	8/9/10 11:36	SW 8260B	BDP
Semi-Volatile Organic Compounds by GC-MS	S		•					
Acenaphthene	U	35600	μg/Kg dry	í	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
iphthylene	ับ	35600	μg/Kg dry	i t	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
- infacenc	U	35600	μg/Kg dry	1	7/29/10 10:08		SW 8270C	JKA JKA
· Benzidine	บ	35600	μg/Kg dry	1	7/29/10 10:08		SW 8270C	JKA -
	-		20 1.0 m.l	•		0.00	U 17 02/UC)VO ,

Date: 9/1/2010

LABORATORY RESULTS

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Springfield Metro Sanitary District

. roject: Client Sample ID:

Collection Date:

Sugar Creek Annual

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Sludge 7/28/10 8:00 Lab Order: 10G0346

Lab ID: 10G0346-03

Matrix: Sludge

A stalyses	Result	Limit	Quul Units	D	F Dute Prepared	Date Analyzed	Method	Analyst
Benzo(a)anthracene	U	35600	μg/Kg dr	y i	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Benzo(b)fluoranthene	ប	35600	μg/Kg dr	y I	7/29/10 10:08	7/3[/10 0:36	SW 8270C	JKA
Benzo(k)fluoranthene	U	35600	μ g/ Kg dry	y l	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Benzo(g,h,i)perylene	ប	35600	μg/Kg dry	y I	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Benzo(a)pyrene	U	7220	μg/Kg dry	1 1	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Bis(2-chloroethoxy)methane	ប	35600	μg/Kg dry	, I	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Bis(2-chloroethyl)ether	U	35600	μg/Kg dry		7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Bis(2-chloroisopropyl)ether	บ	35600	μg/Kg dry		7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Bis(2-ethylhexyl)phthalate	U	35600	μg/Kg dry		7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
4-Bromophenyl phenyl ether	U	35600	μg/Kg dry		7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Butyl benzyl phthalate	ប	35600	µg/Kg dry		7/29/10 10:08	7/31/10 0:36	SW 8270C	JКА
4-Chloro-3-methylphenol	บ	71300	μg/Kg dry		7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
2-Chloronaphthalene	U	35600	µg∕Kg dry		7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
2-Chlorophenol	ប	35600	μg/Kg dry	I	7/29/10 10:08	7/31/10 0:36	SW 8270C	ЛКА
4-Chlorophenyl phenyl ether	ប	35600	μg/Kg dry	1	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Chrysene	U	35600	μg/Kg dry	Ī	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Di-n-butyl phthalate	U	35600	μg/Kg dry	1	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Di-n-octyl phthalate	ប	35600	μg/Kg dry	ī	7/29/10 10:08	7/31/[0 0:36	SW 8270C	JKA
Dibenz(a,h)anthracene	ប	9630	μg/Kg dry	1	7/29/10 10:08	7/31/10 0:36	SW 8270C	ЛКА
I ,2-Dichlorobenzene	U	35600	μg/Kg dry	1	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
1 1-Dichlorobenzene	ប	21400	μg/Kg dry	1	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Dichlorobenzene	Ū	35600	μg/Kg dry	1	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
J.J-Dichlorobenzidine	ប	3570	μg/Kg dry	ĺ	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
2,4-Dichlorophenol	ָ ע	35600	μg/Kg dry	1	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Diethyl phthalate	บ	35600	μg/Kg dry	ı	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Dimethyl phthalate	Ū	35600	μg/Kg dry	i	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
2,4-Dimethylphenol	ប	35600	μg/Kg dry	ī	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
4,6-Dinitro-2-methylphenol	Ū	178000	μg/Kg dry	ì	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
2,4-Dinitrophenol	Ŭ	16100	μg/Kg dry	i	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
2,4-Dinitrotoluene	U	20100	μg/Kg dry	t	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
2,6-Dinitrotoluene	Ū	20900	μg/Kg dry	i	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
1,2-Diphenylhydrazine	U	35600	μg/Kg dry	1	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Fluoranthene	Ū	35600	μg/Kg dry	ĺ	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Fluorene	Ū	35600	μg/Kg dry	1	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Hexachlorobenzene	U	35600	μg/Kg dry	į.	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Hexachlorobutadiene	Ū,	35600	μg/Kg dry	Ī	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA '
Hexachlorocyclopentadiene	Ü	71300	μg/Kg dry	i	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Hexachloroethane	บ	35600	hā/Kā qu	i	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Indeno(1,2,3-cd)pyrene	Ü	35600	μg/Kg dry	i	7/29/10 10:08	7/31/10 0:36	SW 8270C	JKA
Isophorone	บ	35600	μg/Kg dry	i	7/29/10 10:08		SW 8270C	
Naphthalene	บ	35600	μg/Kg dry	i	7/29/10 10:08			JKA
Nitrobenzene	ŭ	8030	hg/Kg dry	i	7/29/10 10:08		SW 8270C	JKA JKA
2-Nitrophenol	Ŭ	35600	μg/Kg dry	I	7/29/10 10:08		SW 8270C	
4-Nitrophenal		178000	μg/Kg dry	1	7/29/10 10:08		SW 8270C	JKA
N-Nitroso-di-n-propylamine	. 0	3570		1			SW 8270C	JKA ·
N-Nitrosodimethylamine	Ū	35600	μg/Kg dry	1	7/29/10 10:08		SW 8270C	JKA
	Ü		μg/Kg dry	į,	7/29/10 10:08		SW 8270C	JKA
N-Nitrosodiphenylamine		35600	μg/Kg dry	į,	7/29/10 10:08		SW 8270C	JKA
thlorophenol	U	3570 35600	μg/Kg dry	1	7/29/10 10:08		SW 8270C	JKA
anthrene .	ប	35600	μg/Kg dry	1	7/29/10 10:08		SW 8270C	JKA
Phenol	Ü	35600	μg/Kg dry	i	7/29/10 10:08	7/31/10 0:36 \$	SW 8270C	JKA

name of the

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Springfield Metro Sanitary District

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Sugar Creek Annual

Client Sample ID: Sludge

Lab Order: 10G0346

Lab ID: 10G0346-03

7/28/10 8:00 Collection Date: Matrix: Sludge Analyses Result Limit Qual Units DF Date Prepared Date Analyzed Method Anulyst Pyrene U 35600 7/29/10 10:08 7/31/10 0:36 SW 8270C JKA μg/Kg dry į 1,2,4-Trichlorobenzene U 35600 7/29/10 10:08 7/31/10 0:36 SW 8270C JKA μg/Kg dry į 2,4,6-Trichlorophenol U 16100 7/29/10 10:08 7/31/10 0:36 SW 8270C JKA µg/Kg dry ı TCLP Semi-Volatile Organic Compounds by GC-MS * 1,4-Dichlorobenzene 10.0 L 8/6/10 13:46 8/6/10 17:51 BDP μg/L SW 8270C *2,4-Dinitrotoluene U 10.0 8/6/10 13:46 BDP μg/L 8/6/10 17:51 SW 8270C *Hexachlorobenzene U 10.0 μg/L 8/6/10 13:46 8/6/10 17:51 SW 8270C BDP *Hexachlorobutadiene U 10.0 8/6/10 13:46 8/6/10 17:51 յլg/L SW 8270C BDP *Hexachloroethane ប 10.0 μg/Ľ. 8/6/10 13:46 8/6/10 17:51 SW 8270C BDP *2-Methylphenol U FO.0 μg/L 8/6/10 13:46 8/6/10 17:51 SW 8270C BDP 3 & 4-Methylphenol U 20.0 µg/L 8/6/10 13:46 8/6/10 [7:5] SW 8270C BDP *Nitrobenzene U 10.0 8/6/10 17:51 μg/L 8/6/10 13:46 SW 8270C **BDP** *Pentachlorophenol Ü 50.0 μg/L 8/6/10 13:46 8/6/10 17:51 SW 8270C BDP Pyridine Ŭ 50.0 8/6/10 13:46 8/6/10 17:51 SW 8270C μg/L 1 BDP *2,4,5-Trichlorophenol U 0.01 μg/L 1 8/6/10 13:46 8/6/10 17:51 SW 8270C BDP *2,4,6-Trichlorophenol U 10.0 μg/L ŀ-8/6/10 13:46 SW 8270C 8/6/10 17:51 **BDP** Organochlorine Pesticides by GC-ECD *Aldrin Ŭ. 156 µg/Kg dry ı 7/30/10 11:12 8/2/10 21:01 SW 8081A **BDP** 'pha-BHC U 77.9 ug/Kg dry 7/30/10 (1:12 8/2/10 21:01 SW 8081A BDP octa-BHC U 156 μg/Kg dry 1 7/30/10 11:12 8/2/10 21:01 SW 8081A RDP *delta-BHC U 156 μg/Kg dry 7/30/10 11:12 8/2/10 21:01 1 SW 8081A BDP *gamma-BHC U 156 µg/Kg dry 1 7/30/10 [1:12 8/2/10 21:01 SW 8081A BDP *Chlordane (total) U 7790 μg/Kg dry 1 7/30/10 11:12 8/2/10 21:01 SW 8081A BDP *4,4'-DDD U 468 7/30/10 11:12 8/2/10 21:01 µg/Kg dry 1 SW 8081A BDP *4,4'-DDE U 1.56 μg/Kg dry 1 7/30/10 11:12 8/2/10 21:01 SW 8081A BDP *4,4'-DDT U 468 μg/Kg dry 1 7/30/10 11:12 8/2/10 21:01 A1808 WZ BDP *Dieldrin U 156 μg/Kg dry l 7/30/10 11:12 -8/2/10 21:01 SW 8081A RDP *Endosulfan i U 156 µg/Kg dry 1 7/30/10 [1:12 8/2/10 21:01 SW 8081A BDP *Endosulfan II U 156 µg/Kg dry i 7/30/10 11:12 8/2/10 21:01 SW 8081A RDP *Endosulfan sulfate U 156 μg/Kg dry ĺ 7/30/10 11:12 8/2/10 21:01 SW 8081A BDP *Endrin U 156 μg/Kg dry I 7/30/10 11:12 8/2/10 21:01 SW 8081A **BDP** *Endrin aldehyde U 156 μg/Kg dry 1 7/30/10 11:12 8/2/10 21:01 SW 8081A BDP *Heptachlor U 156 μg/Kg dry [7/30/10 11:12 8/2/10 21:01 SW 8081A BDP · Heptachlor epoxide U 156 μg/Kg dry 1 7/30/10 11:12 8/2/10 21:01 SW 8081A **BDP** *Methoxychlor U 234 μg/Kg dry 1 7/30/10 11:12 8/2/10 21:01 SW 8081A BDP *Toxaphene U 156 μg/Kg dry 1 7/30/10 11:12 8/2/10 21:01 SW 8081A **BDP** TCLP Organochlorine Pesticides by GC-ECD *Aldrin U 50.0 μg/L 1 8/6/10 10:28 8/9/10 21:58 SW 8081A BDP * alpha-BHC U 50.0 μg/L 1 8/6/10 10:28 8/9/10 21:58 SW 8081A **BDP** *beta-BHC U 50.0 Į µg/L 8/6/10 10:28 8/9/10 21:58 SW 8081 A BDP *delta-BHC U 50.0 μg/L, 1 8/6/10 10:28 8/9/10 21:58 SW 8081 A **BDP** U *gamnta-BHC 50.0 8/9/10 21:58 μg/L f 8/6/10 10:28 A 1808 W 2 BDP U *alpha-Chlordane 50.0 μg/L ı 8/6/10 10:28 8/9/10 21:58 A1808 WZ BDP U mma-Chlordane 50.0 րa∖Ր 8/6/10 10:28 8/9/10 21:58 SW 808LA BDP U I'-DDD 50.0 μg/L 8/6/10 10:28 8/9/10 21:58 SW 8081A **BDP** U *4,4'-DDE 50.0 μg/L Į 8/6/10 [0:28 8/9/10 21:58 A1808 WZ **BDP**

Date: 9/1/2010

LABORATORY RESULTS

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Springfield Metro Sanitary District

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Sugar Creek Annual

Client Sample ID:

Sludge

Lab Order: 10G0346

Lab ID: 10G0346-03

Analyses	Resul	Limit	Qual Unit	<u>s</u>	DF Date Prepare	d Dute-Analyze	d Method	Analyst
*4,4'-DDT	Ţ.	1 100	μg/L		I 8/6/10 10:2	8 8/9/10 21:58	A1808 WZ 8	BDP
*Dieldrin	Ţ		μg/Ľ		1 8/6/10 10:2	8 8/9/10 21:51	SW 8081A	BDP
*Endosulfan I	U	50.0	μg/L		8/6/10 10:2	8 8/9/10 21:58	SW 8081A	BDP
*Endosulfan II	U	50.0	μg/L		8/6/10 10:2	8 8/9/10 21:58	SW 8081A	BDP
*Endosulfan sulfate	U	50.0	μg/L	1	8/6/10 10:2	8/9/10 21:58	SW 8081A	BDP
*Eadrin	U	50.0	μg/L	1	8/6/10 10:2	8/9/10 21:58	SW 8081A	BDP
*Endrin aldehyde	Ū	50.0	μg/L	I	8/6/10 10:28	8/9/10 21:58	SW 8081A	BDP
*Endrin ketone	IJ	50.0	μg/L	1	8/6/10 10:28	8/9/10 21:58	A1808 W2	BDP
*Heptachlor	U	40.0	μg/L	i	8/6/10 10:28	8/9/10 21:58	SW 808 IA	BDP
*Heptachlor epoxide	U	40.0	μg/L	Į.	8/6/10 10:28	8/9/10 21:58	SW 8081A	BDP
*Methoxychior	U	50.0	ħβ\Γ	1	8/6/10 10:28	8/9/10 21:58	SW 8081A	BDP
*Toxaphene	U	250	μg/L	I	8/6/10 10:28	8/9/10 21:58	A1808 W2	BDP
Polychlorinated Biphenyls by GC-ECD								
*Aroclor 1016	U	5140	μg/Kg dr	7 1	7/30/10 11:14	8/3/10 8:25	SW 8082	BDP
*Aroclor I221	U	5140	μg/Kg dr		7/30/10 11:14		SW 8082	BDP
*Arocler 1232	Ŭ	5140	μg/Kg dr		7/30/10 11:14	8/3/10 8:25	SW 8082	BDP
*Aroclor 1242	U	5140	μg/Kg dry		7/30/10 11:14		SW 8082	BDP
*Aroclor 1248	Ū	5140	μg/Kg dry		7/30/10 [1:14		SW 8082	BDP
*Aroclor 1254	U	5140	μg/Kg dry		7/30/10 11:14	8/3/10 8:25	SW 8082	BDP
* ^ nclor 1260	U	5140	μg/Kg dry	· E	7/30/10 11:14	8/3/10 8:25	SW 8082	BDP
TCLP Herbicides by HPLC-MS			•					
*2,4 -D	U	50.0	μg/L	1	8/6/10 15:20	8/9/10 2:47	SW 8321A	JA
*2,4,5-TP	U	50 .0	μ <u>α</u> /Ľ	1	8/6/10 15:20	8/9/10 2:47	SW 8321A	JA
Metals by ICP-MS								
*Antimony	20.4	13,2	mg/Kg dry	2	7/30/10 14:15	8/29/10 8:57	SW 6020A	JTC
*Arsenic	U	13,2	mg/Kg dry	2	7/30/10 14:15	8/29/10 8:57	SW 6020A	JTC
*Barlum	500	13.2	mg/Kg dry	2	7/30/10 14:15	8/29/10 8:57	SW 6020A	ITC
*Beryllium	ប	13,2	mg/Kg dry	2	7/30/10 14:15	8/29/10 8:57	SW 6020A	πс
*Cadmium	U	£3,2	mg/Kg dry	2	7/30/10 [4:15	8/29/10 8:57	SW 6020A	JTC
*Chromium	45.7	13.2	mg/Kg dry	2	7/30/10 14:15	8/29/10 8:57	SW 6020A	JTC
*Copper	245	26.4	mg/Kg dry	2	7/30/10 14:15	8/29/10 8:57	SW 6020A	JTC
*Iron	19500	264	mg/Kg dry	2	7/30/10 14:15	8/29/10 8:57	SW 6020A	JTC
*Lead	172	13.2	mg/Kg dry	2	7/30/10 14:15	8/29/10 8:57	SW 6020A	JTC
*Manganese	1690	13.2	mg/Kg dry	2	7/30/10 14:15	8/29/10 8:57	SW 6020A	JTC
*Mercury	U	2.64	mg/Kg dry	2	7/30/10 14:15	8/29/10 8:57	SW 6020A	JTC
*Molybdenum	U	13.2	mg/Kg dry	2	7/30/10 14:15	8/29/10 8:57	SW 6020A	JTC
*Nickel	27.9	13.2	mg/Kg dry	2	7/30/10 14:15	8/29/10 8:57	SW 6020A	JTC
*Potassium	3580	2640	mg/Kg dry	2	7/30/10 14:15	8/29/10 8:57	SW 6020A	JTC
*Selenium	U	13.2	mg/Kg dry	2	7/30/10 14:15	8/29/10 8:57	SW 6020A	ITC
*Silver	U	13.2	mg/Kg dry	2	7/30/10 14:15	8/29/10 8:57	SW 6020A	JTC
*Thallium	ប	13.2	mg/Kg dry	2	7/30/10 14:15	8/29/10 8:57	SW 6020A	JTC
*Zinc	522	26.4	mg/Kg dry	2	7/30/10 14:15	8/29/10 8:57	SW 6020A	JTC
Vietals by ICP-MS								
Su unic	U	0.0150	mg/L	3	8/6/10 [1:40	8/24/10 17:57	SW 6020A	JTC
*Barlum	0.539	0.0150	mg/L	3	8/6/10 11:40		SW 6020A	JTC

Prairie Analytical Systems, Inc.

Date: 9/1/2010

LABORATORY RESULTS

3ient:

Springfield Metro Sanitary District

dject:

Sugar Creek Annual

Lab Order: 10G0346

Client Sample ID:

Lab ID: 10G0346-03

Collection Date:

Sludge 7/28/10 8:00

Matrix: Sludge

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	<u>An</u> alyst	
◆ Cadmium	U	0.00600		mg/L	3	8/6/10 11:40	8/24/10 17:57	SW 6020A	JTC	
* Chromium	0.0312	0.00600		mg/L	3	8/6/10 11:40	8/24/10 17:57	SW 6020A	JTC	
*Lead	0.130	0.0150		mg/L	3	8/6/10 11:40	8/24/10 17:57	SW 6020A	JTC	
*Mercury	U	0.000600		mg/L	3	8/6/10 11:40	8/24/10 17:57	SW 6020A	JTC	
*Selenium	0.0162	0.0150		mg/L	j	8/6/10 11:40	8/24/10 17:57	SW 6020A	JTC	
*Silver	Ŭ	0.0150		mg/L	3	8/6/10 11:40	8/24/10 17:57	SW 6020A	ITC ,	
Conventional Chemistry Parameters										
Percent Solids	1.86	0.0100		%	1	8/2/10 [0:55	8/2/10 15:25	ASTM D2216	RMN	
						•	•			

Date: 9/1/2010

LABORATORY RESULTS

ent: rroject:	Springfield Metro Sanitary District Sugar Creek Annual	Lab Order: 10G0346
	Notes and Defini	itions
S2	Surrogate recovery exceeds the acceptance criteria due to matrix intassociated analyte(s).	erference, but there is no observable concentration in
SI	Analyte exceeds the laboratory control sample acceptance criteria, b	ut there is no observable concentration in the sample.
S	Spike recovery outside acceptance limits.	
R	RPD outside acceptance limits.	
1	Matrix interference.	
F	Fail	
E	Result above quantitation range.	
CI	Analyte result confirmed by second analysis.	
*	NELAC certified compound.	
ប	Analyte not detected (i.e. less than RL or MDL).	

Chain of Custody Record

Central IL- 1210 Capital Airport Drive - Springfield, IL 62707-8490 - Phone (217) 753-1148 - Facsimile (217) 753-1152 Chicago Office - PO Box 2116 - Crystal Lake, IL 60039-2116 - Phone (847) 651-2604 - Facsimile (847) 458-9680

www.prairiennalytical.com



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e Cilortepapell	Sugar Creek A	Sugar Creek Annual						Pest/PCBs	<u>्</u> थ	0/	psolids	otal Metal				CALM
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